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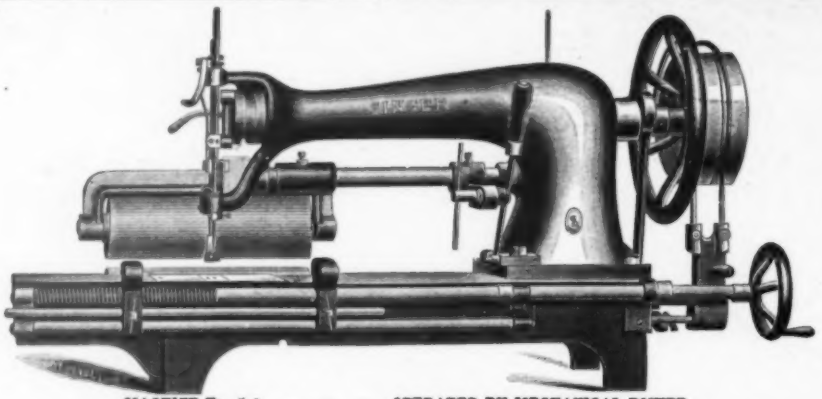

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## TWO TYPES OF MANUFACTURERS.

THE wonderful growth of the rubber business sometimes prompts the question; Why is it that, instead of hundreds of factories scattered all over the Union, did not the pioneers keep ahead of the times, and so increase their plants that they could fill the increasing demands and thus keep the newer men out? There are many reasons, but the soundest, perhaps, is that the wisest manufacturers do not wish for too much business. There are those, of course, in every industry who seem to be in business simply to build great mills and market an enormous product. The safe man, however, chooses rather a smaller business, eliminating from time to time lines that are of less profit, declining risky accounts, simplifying his products, and bettering his goods so that, be they staple or special, his name will mean more and more a certain integrity that all come to recognize. He figures on the demand for his goods in the dull rather than in the "boom" years. He is sure to stay in business and get a fair amount of this world's goods for himself, while the aggressive, progressive "hustler" may strike it rich or may "come a cropper." Both types are necessary, and both will be ever with us. One creates, the other conserves. Together they form the sum total of industrial progress.

## PRICES OF RUBBER AND THE DEMAND.

A LOOK backward at the era of high prices for crude rubber that has just come to a somewhat sensational close develops the interesting fact that through it all the manufacturers were not only uniformly busy but new factories were successfully started, old ones enlarged, and a general prosperous condition prevailed. Looking forward to a twelvemonth, at least, of low prices, it is a significant fact that the belief that the good times will continue is not held because of the low price of crude material. As a matter of fact, the high or the low quotations have little effect upon the manufacturer or upon the volume of his business. It is the old, old story of the law of supply and demand.

Business promises to be good this year because other industries are flourishing. For example, the great companies who build mining machinery are full of orders. Part of the equipment that they use comes from the mechanical rubber trades, and be the crude material high or low the orders will come in just the same. And so it is in a hundred other industries, all of which contribute something to swell the vast sum total of manufactured rubber goods.

There will be, of course, among buyers those who will demand lower prices because of the present low price of crude, who will not understand that when the business is done on a large scale prices are based on average prices that cover long periods of time, nor will they appreciate that other materials as necessary as rubber are still high, and that the labor cost, the mechanical equipment, the hundred and one factory and selling expenses are in no way diminished. Rubber manufacturers have,

however, learned to appreciate this more and more, the result being that a drop in crude rubber no longer induces disastrous price cutting in rubber goods as it once did.

## RUBBER AND D'ORDIARDI'S THEORY.

THERE appeared in *Pearson's* magazine for March an exceedingly interesting article on "The New Elixir of Life" discovered by Professor D'Ordiardi, a well known professor of electricity in a West of London hospital. It will be remembered that the learned professor, in conjunction with Professor Virchow, at the great medical congress in St. Petersburg, proved beyond all doubt that there was only one kind of disease and that was cell disease. It was then forecasted that the way to cure disease of cells and build new cells was to supply them with a vital force, presumably electricity. Professor D'Ordiardi has, therefore, invented various static machines for different sorts of cell building and has effected some marvelous cures. So much for this part of his work. The theory that he defines, however, to counteract the loss of electricity through sudden shock and unfortunate surroundings should be of interest to the rubber trade. Certain simple instruments that he has designed will show to the individual whether the office, countingroom, or bedroom is one that is so situated as to drain the electrical energy from whoever inhabits it. Once proved it is of course exceedingly easy to insulate a whole room or any of the furniture, or for that matter, the man himself. If Professor D'Ordiardi's theories be proved, there is no doubt that the use of chair tips of rubber, and of rubber soled shoes is a definite advantage. Indeed, it is quite possible that the time may come when not only chairs, but couches and beds will be set on blocks of rubber, and perhaps houses, office buildings, and hotels will have an insulating expert as one of the board of architects employed on the building. That there may be a definite need for something of this kind is wholly within the bounds of reason. The city and town dwellers to-day have such distinctively artificial surroundings, and there are such enormous wastes in the matter of nerve force, that it is time that science came to the aid of man, in not only measuring such wastes, but in counteracting them.

## THE COST OF PLANTING RUBBER.

MANY inquiries are made as to the cost per acre of planting rubber trees, which work, to the uninitiated, doubtless seems a very simple matter. But it is evident, from the printed reports of some of the large plantation companies, that the mere setting out of the young seedlings must represent but a small part of the work necessary in forming a plantation on land just reclaimed from the native forest. Before there can be any planting must come the establishment of a community of laborers—which does not, of course, exist in a forest covered region. The work of clearing is no small matter, and this is followed by the planting, continued probably through several years, with simultaneous care of the trees already set out. It seems to be the part of economy to produce on the plantation, as far as possible, crops necessary for the subsistence of the men and animals employed, and not a few companies are engaged also in the cultivation of "side crops" for market, such as will yield an income while the rubber trees are reaching a productive age.

On one plantation in Mexico, a report on which has reached us, although the greater part of the projected rubber planting remains to be done, a village has grown up, with a population varying from 250 to 500, a municipality has been organized and a postoffice established. There is a company store, carrying a stock of goods valued at $10,000 Mexican; a meat market, blacksmith shop, laundry, saw mill, brick-making plant, and lime kiln; and also a school for the children on the plantation and a salaried plantation physician. There is even a police force—paid for, like everything else mentioned above, by the company. It is only by making an outlay for these various purposes that a supply of labor can be insured for the coming years of development which must precede the first yield of cultivated rubber from this plantation. There must be labor for constructing buildings, laying out roads, building numerous small bridges, and for planting the various quick producing crops—all of which work is carried on while other laborers are clearing land, making rubber nurseries, and transplanting rubber seedlings and caring for them for the first few years. Moreover, some outlay is often necessary for creating means of transportation to the nearest railway or seaport.

Of course the plantation referred to is one of the larger enterprises of this class in Mexico; but even on the small private plantations the owner does not calculate to plant or live by rubber alone. There are, on the small as well as the large estates, many items of outlay beyond the mere setting out of rubber trees, so that the prospective planter who confines his estimates to this one feature alone will likely be doomed to early disappointment. All of which would indicate that the question so often heard, as to the cost per acre of "planting rubber," is much easier asked than answered.

"KINDLY INFORM ME WHO MAKES RUBBER IN MY VICINITY," asks an ingenuous correspondent. The maker of rubber is the same intelligence as He who makes corn, wheat, and cotton; in other words, the Creator. Rubber is a natural product, and no man has as yet been able to *make* it, or even successfully counterfeit it. The form in which the query is put indicates a lack of knowledge of even the rudiments of rubber manufacture, and as it comes from a source that presupposes such knowledge it merits this answer.

THE LIFE STORY OF THE JAPANESE PIONEER in the manufacture of insulated wire, Mr. Zenpachi Fujikura, that appears in another column, is worth more than passing notice. A change of name and locality would make it the biography of the best type of self made American. Energy, ambition, honesty, ability, and rare charity, all are shown in the simple story. Mr. Fujikura was a credit to the great industry in which he spent the best years of his life.

APROPOS OF A CRUDE RUBBER TRUST, the very place to organize one ought to be up the Congo river—at the very starting point of rubber production, and beyond the reach of laws to compel "publicity." The London *Daily Mail* reports that the Belgian trading companies on the Kassai, whose competition has raised the buying prices considerably, have formed a trust to keep the prices down.

THE FEBRUARY WEATHER couldn't have been better for selling "rubbers" if the mauufacturers had had the ordering of it.

## GUTTA-PERCHA IN THE PHILIPPINES.

A COLLECTION of nineteen samples of Gutta-percha and India-rubber gathered in the Philippine islands has been received by THE INDIA RUBBER WORLD from the Forestry bureau at Manila, and submitted to an examination to determine their merit. This collection is not to be considered as truly representative of the resources of the Philippines in the way of the two commodities named; they are merely such specimens of these products as have happened to reach the Forestry bureau, without a complete examination of the forests of the archipelago, and gathered for the most part by persons unfamiliar with the proper preparation of these gums. None of the gums in this collection is of high value; they are of interest mainly in that their existence in the Philippines marks that region as being within the "rubber zone," which indicates the possibility that better grades of Gutta-percha and India-rubber may be discovered as the result of a more careful examination.

A large proportion of the samples are of Gutta-percha or Gütta like gums. The following four—to quote the numbers and labels borne by the specimens—are resinous gums of doubtful value:

No. 4. [Label indecipherable.]

No. 6. Goma de Balete. *Ficus concinua.* [Balete is a port on the east coast of the island of Mindanao.]

No. 18. Goma de Zamboanga. [From the southwestern part of Mindanao.]

No. 19. Gutta-percha. *Palaquium calapia.*

The words in italics in the above and following labels designate botanical terms.

No. 9. Baliti goma. Zamboanga. [There is a Point Baliti on the Island of Mindoro, but Zamboango is in Mindanao.]

An exceedingly sticky gum, which might possibly be valuable in frictions, but of which the sample is not large enough to give a more definite idea.

No. 2. Gutta-percha. *Palaquium Luzoniensis* (Vidal.) "Calapice blanco."

Good only for a mixture or adulterant with better grades of Gutta-percha.

No. 7. Goma de Ditá. *Alstonia scholoris.*

Of use only for mixing with Padang Gutta.

No. 1. Gutta percha. *Palaquium latifolium.*

No. 16. Gutta-percha. *Palaquium* (?) Mercado de Cotobato. [From a merchant of Cotobato, in Mindanao.]

Very similar to fair grades of Manila Gutta. No. 16 might be worth 10 or 12 cents a pound.

No. 10. Goma del Balete. *Ficus superbus.*

No. 23. Gutta-percha. Maestra de Gacuvan.

Exceedingly cheap grades of Gutta-percha. Worth perhaps as much as No. 16.

No. 17. Goma del mercado de Cotabato.

Rather dirty and carelessly prepared; might be worth 9 cents a pound.

No. 5. Goma de Antipolo. *Artocorpus incisa.* [Antipolo is on the island of Luzon, not far from Manila.]

Similar to Niger Gutta.

No. 3. Goma elastica. *Ficus elastica.*

Rubber like a cheap grade of Borneo, and worth about 12 cents a pound. The ascription of this sample to *Ficus elastica*, by the way, should not be accepted without further proof that *Ficus elastica*—the rubber tree of Assam—really exists in the Philippines.

No. 21. Goma de Ficus. Zamboanga.

A Tuno like gum, worth perhaps, 5 cents.

No. —. Gutta-percha. Negros. [From the island of this name.]

The best sample in the lot. Like Padang Gutta-percha, except that it is "off color." Worth about 65 cents a pound. The remaining three specimens call for no special mention.

A more encouraging view of the situation is afforded by the information in regard to the actual collection of Gutta-percha in the Philippines, already printed from time to time in THE INDIA RUBBER WORLD. It may be added that the first government statistics under this head are at hand, reporting the collection of export duties, beginning July 1, 1901, on two items of forest products as follows:

| | Gutta-percha. | India-rubber. |
|---|---|---|
| July - - - - pounds - - - - | | 28,750 |
| August - - - - - - - - | 46,911 | 19,408 |

It is not probable that so much rubber was actually exported, for some of the traders use the terms "India-rubber" and "Gutta-percha" indiscriminately.

The United States Philippine Commission, in session at Cotabato on April 2, 1901, questioned a Moro dato named Piang—an important local personage—when he stated that all his people collected "rubber," that the number of trees was very great, and that since the commercial value of "rubber" had become known, the people take care to preserve them, instead of cutting them down. He said that his people in five months gathered 800 piculs [=106,666⅔ pounds] of rubber, which he sold to the Chinese at $50 Mexican per picul [=18¼ cents gold per pound], which would amount to $2000 gold. Piang had in hand at the time 80 piculs [10,666⅔ pounds] which he offered to give to the United States for the new Pacific cable.

On the same day of the Capitan of Chinos (the captain of Chinese) at Cotobato appeared before the commissioners and testified that during January and February the Chinese had sent out between 500 and 600 piculs of Gutta-percha. He had paid the natives $45 to $50 Mexican per picul [=16.9 cents to 18¼ cents gold per pound], selling the Gutta at Jolo at prices equivalent to 22½ cents gold per pound, and at Singapore at 30 to 32 cents. He estimated his profits at 3 to 8 cents per pound, after paying freights and other expenses. All of which would suggest the presence in the Philippines of Gutta-percha of higher values than the preliminary collection of samples sent out from Manila.

## ENGLISH CABLE COMPANIES TO COMBINE.

AT the ordinary general meeting of W. T. Henley's Telegraph Works Co., Limited (London), on February 20, the report of the board was adopted, recommending a dividend for the year of 20 per cent. on the ordinary shares, after providing for the usual 4½ per cent. dividend on the preference shares, and 4½ per cent. interest on the debentures. There are £175,000 in preference shares and the same amount in ordinary, and the debentures amount to £50,000. The dividend on the ordinary shares for five years preceding was 10, 12, 14, 15, and 20 per cent., respectively.

The directors announce in a circular issued to the shareholders that terms have been arranged by which the company will amalgamate with Callender's Cable and Construction Co., Limited (London). The capital of this company consists of £150,000 in ordinary shares—on which 15 per cent. has been paid for two or three years past—and £200,000 in 5 per cent. cumulative preference shares; and there are £90,000 in 4½ per cent. debentures.

THE report of the directors of the Liverpool Rubber Co., Limited, for the past year shows that the profits on the year's working were £12,178 4*s.* 9*d.*

## MR. JAMES B. DILL.

IT is only fair that the rubber trade should have full credit for having brought out the first up-to-date "Roosevelt" corporation charter—that is, a "publicity" charter such as President Roosevelt recommended in a recent message to Congress. The newspapers of the country have done full justice to this most important forward step. THE INDIA RUBBER WORLD has a record of nearly one hundred of the leading daily journals that editorially and in their news columns have been unstinting in their praise, and whatever procedure the press of the country as a whole commands is pretty sure to become general. It was with this idea in mind that the Editor of THE INDIA RUBBER WORLD set out to interview the author of this historic charter, Mr. James B. Dill. In spite of the fact that he is perhaps the most prominent corporation counsel in the United States, and the man to whom Andrew Carnegie is said to have paid $5000 for an opinion that was expressed in a single word, he was not a hard man to reach. He, however, refused absolutely to be interviewed, as he had made a rule two years ago never to give another interview. But he was so full of life and interest in the world's corporation work that he could not keep from talking. In response to his caller's opinion that his new type of charter was a brilliant move, he said:

"I don't like that word 'brilliant'; common sense is what I call it, and what it is, and the others are all to come to it shortly." Mr. Dill, in the course of a further chat, admitted that early in March he was to deliver an address at Harvard University on national legislation as opposed to state legislation, taking the new rubber company's charter as a text.

## RUBBER SHOE TRADE IN HONGKONG.

ACCORDING to the United States consul general at Hongkong, Mr. W. A. Rublee, the Chinese are not large consumers of such manufactured goods as are in demand in most other markets. The sale of most kinds of manufactured goods in that country is confined to a small number of resident Europeans and Americans. To secure any large amount of Chinese trade, it would be necessary for manufacturers to cater to the tastes and wants of the Chinese people. There are two classes of imported goods, however, which find a ready sale in the Hongkong district—cotton socks and rubber shoes.

"There has been a growing demand for both these articles in recent years, and they are coming to be regarded as necessities. The poorer classes in southern China have in the past worn nothing on their feet and most of them still go barefooted. There is, however, an increasing tendency to wear cotton socks and rubber shoes, which is likely to cause a large demand for both articles in the future. They are now supplied by English and German manufacturers, principally the latter.

"The rubber shoes sold in Southern China are similar to those manufactured in the United States, except that they are slightly heavier and are shaped like a native shoe. They are worn without stockings, are of comparatively recent introduction, but are likely to come into general use. They are made in Germany mostly, though some come from England. The cheapest variety costs about $1 Mexican (45 cents gold) per pair at retail, while the best quality sells for about $1.50 Mexican (67 cents)."

It may be added that government statistics show the export, direct, from the United States to Hongkong of the following number of pairs of rubber shoes in the various fiscal years:

| | | | | | |
|---|---|---|---|---|---|
| 1891 | 72 | 1895 | 156 | 1899 | .... |
| 1892 | 84 | 1896 | 1,548 | 1900 | 708 |
| 1893 | 58 | 1897 | 26,822 | 1901 | 1,634 |
| 1894 | 372 | 1898 | 400 | | |

The value of such exports in 1897 was $11,995.

## RUBBER SHOE MAKING IN GERMANY.

THE *Schuhmarkt* (Frankfort-on-Main) reports a favorable condition of the German rubber shoe industry during 1901, although snow was late in appearing in the winter of 1900-01. The facilities of the Vereinigte Gummiwaaren-Fabriken, Harburg- Wien, are spoken of as being capable of supplying wellnigh the whole German demand for rubber footwear, though the home manufacture in this line is handicapped by the ease with which, owing to low import duties, the American and Russian products gain access to the markets of Germany and Austria-Hungary. It is pointed out as a mistaken idea, on the part of the public, to call for low priced rubber shoes—since these of necessity must be light in weight and lacking in durability. The rubber soled canvas shoes made by the Harburg-Vienna factories are said to be coming rapidly into wider use, for gymnasium, sporting, and beach wear. These shoes have been worn extensively in England for two years past, not only for the purpose above stated, but also by persons of small means as an ordinary walking shoe, being the cheapest possible footwear, and combining the qualities of excluding dampness and affording proper ventilation to the foot. The same factories did a large business during the past summer in their "Universal Plimsoll" canvas shoe, the facilities for making which have been enlarged in anticipation of a still larger demand in future.

The figures which follow, from official sources, show the quantities (in kilograms) of rubber boots and shoes imported into, and exported from Germany, during the past two years, together with the countries with which the trading was done:

IMPORTS.

| | 1900. | 1901. |
|---|---|---|
| Great Britain | 39,800 | 28,200 |
| Austria-Hungary | 93,000 | 28,600 |
| Russia | 450,100 | 532,700 |
| Sweden | —— | 51,000 |
| United States | 38,100 | 55,800 |
| Other lands | 16,900 | 10,800 |
| Total | 637,900 | 707,100 |
| Value *marks* | 3,668,000 | 4,066,000 |

EXPORTS.

| | 1900. | 1901. |
|---|---|---|
| Belgium | 18,700 | 9,500 |
| Denmark | 19,000 | 9,600 |
| France | 16,800 | 16,500 |
| Great Britain | 151,000 | 125,400 |
| Holland | 10,400 | —— |
| Switzerland | 6,400 | —— |
| Other lands | 64,900 | 56,500 |
| Total | 287,200 | 217,500 |
| Value *marks* | 1,580,000 | 1,196,000 |

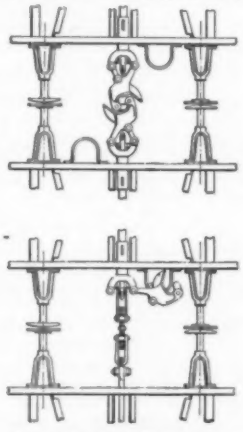
# THE USE OF RUBBER ON BRITISH RAILWAYS.

*By an Occasional Correspondent.*

SOME time ago* the writer gave an account in these pages of the rubber requirements of British railways, treating the subject in its general aspects. It is now proposed to refer to the subject again, with rather more attention to detail on one or two points, the importance of the issues involved to those who are most closely concerned seeming to warrant this recurrence to matters which have certainly not been exhaustively treated of in our trade literature.

Commencing first with the locomotive, reference may be made to the fact that practically no rubber is used by our locomotive engineers. Rubber packings for piston rods, etc., have been almost universally replaced by asbestos cord, and the rubber buffer spring has in like way been superseded by the volute steel spring in the great majority of cases. In certain cases, but more for engines used only for shunting purposes, the Eames non-automatic vacuum brake, an American invention, is in use, and this necessitates the use of rubber diaphragms. In this connection it may be said, on the authority of a locomotive engineer, that the diaphragms which have been supplied from America, with the rest of the brake fittings, have failed to give satisfaction under the somewhat trying conditions of use. I understand that these diaphragms are now being supplied by English makers, and are found to last longer before necessity arises for their renewal. This statement is given for what it is worth; it may easily be that engineers in a similar position to my informant may have had different experiences.

Although, with regard to the use of rubber buffer springs, it cannot be said that a rapid decline is apparent, there can be little doubt that the business has seen its best days, though until the central coupling system becomes more generally adopted, a demand for rubber will exist. At present the central coupling is almost entirely confined to what are known as twin trains, which are run on the suburban services of our large towns and which run backwards and forwards without any uncoupling. Certainly its adoption in main line traffic is to be seen with respect to the corridor coaches of the through trains of the Great Central railway, and it is permissible to expect that this form of coupling will see further development in Great Britain, because there is a growing tendency to adopt American methods on our railways—a matter to which a further specific reference will now be made.



CENTRAL CAR COUPLING.

1. Showing position when two cars are fitted with the American Coupling and brought together.
2. Showing position when the car with the coupler is to be connected with a car with the present style of British Coupler.

This, for us, new procedure is the employment of larger coal and goods wagons on our railway systems. Not that any real progress in this way has to be recorded, for the move is but in an embryonic condition; still, even at this stage, it seems to merit attention here because of the prospective increased demand for rubber air brake tubes. In the Sheffield & Twinberrow patent coal wagon, which is now being built to the order of the North Eastern railway, 35 tons of coal are carried as against 10 tons in the ordinary wagons, but without going into further detail, which would be somewhat remote from the scope of this article, the advantages of the new departure are that the engine has to haul less dead weight in proportion to the amount of freight carried than is now the general rule. Should these wagons come into extensive use, there can be no doubt of the increased demand for rubber pipes for either the Westinghouse or vacuum brakes, unless the decision to adopt continuous brakes should be reversed, a contingency which hardly seems likely. With regard to the use of Westinghouse pipes, bare or having a canvas sleeve, the general rule is to adopt the sleeve, and one large railway company which gave up this appendage as useless has again reverted to its use. It certainly seems desirable to have some protective covering corresponding to the hemp covering universally used on the vacuum brake pipes, more especially in the case of those railways which exact a five or six years' guarantee. It must be remembered that these pipes are continually under pressure, amounting in the case of express trains to 70 or 80 pounds, and in slow trains to 50 or 60 pounds on the square inch. Where the sleeve is not used, it is found that the usual seat of disaster is just by the nipple, and it is easy to understand that this should be so, seeing that this is the spot which experiences the rough and greasy touch of the shunter's hand.

There is nothing new to report on the subject of the rubber pipes used for steam heating in trains; the rubber continues as of old to excite the wrath of railway engineers, because it does not retain perennial youth under the trying circumstances to which it is subjected. Although metallic tubing does not seem to have made any converts for this purpose, it is being regularly used on the Lancashire and Yorkshire railway for the feed pipe between tender and engine, and it would certainly seem to be of more utility than rubber in those cases where liquid fuel is used.

On more than one occasion reference has been made in this journal to the tender forms for rubber goods issued to rubber manufacturers yearly by the railway companies of the United Kingdom, and comment has been made upon the stipulations sought to be enforced therein. In no case, however, do our home railways give minute specification of detail, such as is to be found in the specification forms for India-rubber fittings given out on behalf of various Indian and colonial railways by their resident London engineers. One such engineer in large practice is Sir Alexander Rendel, and from his offices and worded presumably under his immediate supervision, go forth yearly tender forms for the various stores required by the railways over which he has control. Of course we are here concerned only with rubber goods, but it may be mentioned that all the specifications issued from these offices contain similar instructions as to matters of detail and which, in the opinion of a number of contractors, far exceed the conditions which ought legitimately to be imposed. It is said that though there is always a good deal of grumbling among contractors at having to conform to Sir A. Rendel's specifications, yet there is no lack of applicants for the work. If this is really so, it certainly does not seem fair to attempt to shuffle out of responsibilities

* THE INDIA RUBBER WORLD, JUNE 1, 1900—page 239.

undertaken if they have been incurred with full knowledge of the facts. It may not be without interest to enlarge upon the subject of the rubber specifications, representing as they do the extremest length to which any buyer has as yet imposed restrictions on the rubber manufactures.

The vulcanized rubber is to be manufactured from fresh, well-washed, new rubber of the best class, compounded with sulphur and mineral matter, the class of rubber and the kind of mineral matter to be mentioned by the contractor. No previously vulcanized rubber scrap, or crumb rubber, charcoal, lampblack, cork, rubber substitute, or any organic substances other than new rubber are to be used in carrying out the contract. The India-rubber exclusive of sulphur is in no case to be less than 48 per cent. of the finished rubber; the vulcanizing sulphur is not to be less than 2 or more than 4.5 per cent. of the finished rubber. The mineral matter and sulphur combined is not to exceed 52 per cent. by weight of the finished rubber, and is to consist of not more than three different substances to be named in the tender, no one of which is to be present in less quantity than 8 per cent. On boiling rubber finely rasped from the finished article, for six hours in 6 per cent. alcoholic soda, the loss must not exceed 12 per cent. calculated on the organic matter only, and similarly on boiling for six hours in absolute alcohol the loss must not exceed 5 per cent. calculated on the organic matter only. In both cases the alcoholic extract must contain sulphur and India-rubber resins only. The vulcanization of the rubber is to be effected directly by means of pure sulphur and not by any compound of sulphur.

It will be acknowledged that strict attention on the part of the contractor to the above details does not leave much room for the application of those mysteries or trade secrets which are supposed, though on a slender basis of fact, to form part of the good will and fixtures of any rubber factory. The specification is not merely a matter of form, for inspectors are engaged to superintend the manufacture and to make the specified mechanical tests, as well as to take samples for chemical analysis. It is not proposed on the present occasion, even if consideration of space were not all powerful, to discuss the specification or to point out spots of inherent weakness; it will be enough to bring its existence to the knowledge of American manufacturers, and if this has the result of eliciting some expressions of opinion as to the advisability of putting so much restriction upon the trade, some good purpose will undoubtedly have been served. The writer is not aware of any complaints having been lodged against contractors for using any other rubber than that specified, and although the term "Pará" has a somewhat wide connotation now-a-days, it will be noticed that the use of Pará rubber is not compulsory, and rubber of the best class is a term that admits of various readings, according to the ideas of individual manufacturers. If, for instance, you state that you will use Pará rubber only, and this is understood to include negroheads, it would be rather difficult for the chemical examiner, let alone the inspector, who is usually a young engineer, to certify that a violation of the treaty had occurred if the best quality of African rubber was used to some extent. Of course the object of the extraction tests with alcoholic soda is to detect the use of resinous rubbers, but as high class Africans are now obtainable with a very low content of resin, it appears that the chemical tests at the disposal of the Westminster engineers are insufficient to enable them to lay down for rubber such stringent regulations as in the case of metals and alloys, any deviation from the specifications of which are easily and accurately detected by analysis. There is this to be said for these Westminster specifications: the time for which a guarantee is required to be given is 3½ years, and not five or six years, which some of our principal railways imagine should be cheerfully given by rubber manufacturers. It seems to me, and no doubt I am not alone in this opinion, that 3½ years is quite enough, when one has practically no means of ascertaining whether the goods have been subjected to specially adverse conditions or not, in cases where complaints as to defects arise. It would place the average inspector under these contracts in a somewhat awkward position if all the clauses of the "general conditions of contract" were duly observed.

Thus it is laid down that the contractor shall before proceeding to execute any work submit for the approval of the engineer the way in which he proposes to execute each portion of it. This sounds like the reprint from some stereotyped metallurgical contract form, and, as far as my knowledge of the inspecting engineer goes, it had better be honored in the breach in the case of rubber goods, otherwise the said engineers might easily be the victims of practical joking. Not so long ago this subject of inspection by the buyers' engineer was treated in a satirical vein in this journal, and perhaps it may be news to many readers to hear how far it has attained in Great Britain.

* * *

THE INDIA RUBBER WORLD has at hand copies of specifications for India-rubber stores required by several British railway companies, and the conditions under which tenders are invited. From these have been compiled the details below, as indicating the items of rubber manufactures which find use in railroading. Only one of these documents specifies the quantities required for twelve months—the Great Northern Railway Co. (Ireland)—whose requirements, relatively, would not be large. The details are condensed herewith:

8 gross Springs, Spencer's patent.
1 gross " " " Iron, imbedded.
224 pounds Strips, rectangular, 5"×¾" and 4"×1".
144 pounds Rests for carriage windows.
300 pounds Carriage body blocks, 8"×4"×1."
15 gross Washers, for vacuum brake couplings, etc.
254 pounds Sheet, various thicknesses.
60 pounds Washers for gauge glasses.
2 gross Regulator rings.
½ gross Buffers for patent door steps.
½ gross Door stops.
10 gross Joint rings, 15", 18", and 21".
1500 feet Hose for gas, wired, ⅜" to ¾".
1020 feet Feed pipe, wired, 4 ply, ¾" to 2½" bore.
2112 feet Wash-out pipes, 4 ply, ½" to 2½".
700 feet Tube for water, 3 and 4 ply, ½" to 2¼".
100 feet Tube glazed for gas, ½" outside diameter.
50 pounds Solution.
336 pounds Tires for truck wheels.
2000 feet Belting, 3 to 8 ply, 1¼" to 8" wide.
18 gross Rings for cylinders, 15" to 21".
15 gross Rod packing rings for auto-brakes.
12 gross Vacuum brake hose pipe connections.
2 gross Drip balls.
3000 yards Roofing Cloth, Jeffrey's patent.
2 dozen Miniature sacks for horse boxes.
4 dozen Diaphragms, 18".
6 dozen sheets Vulcanized fiber flexible sheeting.
—— pounds Loco packing.

The specification sheet from the Great Northern Railway of England comprises 107 items under the heading "India-rubber," embracing the following, which do not appear in the preceding list:

Hose pipes for vacuum brakes.
Hose pipes for steam heating.
Hose pipes, Westinghouse brakes.
Sleeves for the same.
Water crane pipes.
Hydraulic tubing.
Draught tubing.
Pyramid mats.
Balls.
Cement.
Cones for water closets.
Dust shields for axle boxes.
Knee aprons.
Lamp head stops.
Oilskin suits.
Sheet—for squeegees, etc.
Stair nosing.
Vestibule wind guard covers.
Water bottle washers.
Asbestos sheeting.

# THE SOUTH AMERICAN RUBBER FIELDS.

## RUBBER OUTPUT OF THE AMAZON VALLEY.

IN a report to his government the United States consul at Pará, Mr. K. K. Kenneday, under date of December 27, wrote that the unusually large receipts of rubber up to that period had been made the basis for many calculations concerning the total output of rubber from the Amazon valley for the crop year, and its effect upon the commercial future of Pará. The largest rubber buyers and exporters were still chary of expressing opinions as to the season's crop, and were conservative in their dealings. Some held that the bulk of the crop had already been marketed, and that the months of January, February, and March, when the heaviest shipments are usually received, would show a very large deficit.

"On the other hand," writes the consul, "information recently received shows a diametrically opposite state of affairs. Business was good in the previous year [1900-01], exchange low, and credits easy. The *aviadores* and laborers indulged in many luxuries; they bought better food than usual, and treated themselves to watches, jewelry, and expensive clothing. The end of the season found the crisis at hand, exchange rising rapidly, the gatherers deeply in debt, and the price of rubber reduced 20 per cent. This year they are making a desperate effort to pay off this indebtedness and make a fresh start. They are getting a large proportion of their food from the streams and forests by hunting and fishing; they are purchasing only absolute necessities; and are working overtime to increase the crop and liquidate their bills.

"It is reported that there are now on the way down the river, from the upper tributaries of the Amazon, about 700 tons more rubber than has ever before been shipped from that section in one season, and there are at least 200 tons more to follow. About thirty small steamers and launches have left this port and Manáos for the Acre, Jurua, Purus, and Beni rivers, and are due to return here in February. It is not to be supposed that they will come back empty. Altogether, there is reason to believe that this season's rubber crop will exceed that of last year by a very considerable margin."

Consul Kenneday refers to the final adjudication of the boundary dispute between Bolivia, Peru, and Brazil, with the formal relinquishment of the thousands of square miles of land involved to the two first-mentioned countries, which he says may mark the beginning of a new era in this part of South America.

"The territory under dispute, with the adjacent regions in the Andes mountains, is said to be very rich, and Americans should not permit the people of any other nation to anticipate them in the exploitation of this field. The cession of this land will deprive the Brazilian state of Amazonas of a large portion of the revenue which it derived from export duties on rubber, as much of the rubber from the Acre, Purus, Javary, and other rivers embraced in the territory ceded to Bolivia has hitherto passed through the Manáos custom house, but will now pay toll to Bolivia. On the other hand, Pará will profit indirectly by the new conditions, as all cargoes entering and leaving the Amazon pass through this port."

## DEVELOPMENT IN BOLIVIA.

CONSUL KENNEDAY transmits with the report above quoted a statement made to him by Señor Florian Zambrano, high commissioner and financial agent of the Bolivian government, in which it is stated:

The rivers which the treaty with Brazil now incorporates into Bolivia are the Acre and Yacu and their affluents; the upper Purus and uppe Jurua and their affluents (the Enviri, Tarahauca, Mua, Gregorio, etc.) Up to the present time, Bolivia's occupation of this territory has been confined to the Acre and its affluents, where the custom house of Puerto Alonso is established. The rubber exported from the Acre and its affluents alone reaches 3500 tons per annum. The total export of rubber from the other rivers just named amounts to another 5000 tons per annum, and is increasing yearly. This rubber is of the first quality, and is sold in European markets at the same price as, and under the name of, fine Pará rubber.

Señor Zambrano states that Bolivia has decided to subsidize a line of foreign steamers to ply between Europe and Pará, incoming cargoes to be transferred at Pará and sent to the Acre in smaller steamers of the same company. No contract exists as yet for this purpose and the government is disposed to accept the best proposal that may be presented. Another important work in prospect, and for which plans are said to have been made and the cost estimated, is the construction of a railway from the river Acre to the Beni or Madre de Dios, which would give an outlet for the rich rubber fields of the latter streams to the Amazon, independent of the badly obstructed Madeira, the high freight charges on which were referred to in the last INDIA RUBBER WORLD.

The government of Bolivia grants large tracts of uncultivated land to capitalists who intend to colonize her territories; admits free of duty and other taxes all machinery, factories, tools, agricultural implements, etc., and protects and guarantees the personal safety, work, and property of all foreigners. There is said to be not a single instance of a diplomatic claim against Bolivia on account of damage, violence, or injury to foreign subjects. The rich mineral resources of the country, no less than rubber, are expected to attract outside capital, besides which the climate is salubrious, and the soil favorable for the production of food staples. It is only the neglect of natural advantages that has led to the scarcity and high cost of subsistence on the Beni, lately commented on in this journal.

During the year ended July 1, 1900, the government of Bolivia granted new concessions for working rubber as follows:

| | | |
|---|---|---|
| Department of La Paz | 7264 | estradas. |
| Department of Santa Cruz | 9590 | " |
| Department of Cochamba | 500 | " |
| Total | 17,354 | " |

Since each *estrada* is supposed to embrace 150 rubber trees, these concessions would account for 2,603,100 trees brought under private control within a year. It is understood, however, that many small rubber properties in Bolivia are for sale, due probably to a lack of working capital on the part of the *concessionaires*, while perhaps some of them have been located only with a view to selling them.

A statement has reached THE INDIA RUBBER WORLD that the following amounts of rubber paid export duties (15 per cent. *ad valorem*) at the Bolivian custom house in the Acre river district—lately in dispute between Bolivia and Brazil—between January 29 and April 16, 1901, and were shipped via Pará:

| | Pounds. |
|---|---|
| Goma elastica (fine rubber) | 2,954,879 |
| Sernamby (coarse rubber) | 328,275 |
| Caucho | 13,728 |
| Total | 3,296,882 |

# THE RUBBER PLANTING INTEREST.

## PRIVATE RUBBER PLANTATIONS IN MEXICO.

A VISITOR to Mexico last summer made some notes in relation to private rubber planting which he has been good enough to forward to THE INDIA RUBBER WORLD. As an illustration of their nature, the facts which he compiled in one "colony" in Vera Cruz are summarized here. His list embraces eighteen planters who have planted more or less rubber—some devoting their attention to rubber alone, and others making it a subordinate interest. Three of these planters have been established in Mexico since 1896, eleven since 1897, and four since 1898—making their average length of residence four years, up to last summer. As a rule, each has planted some rubber annually since the first year. The total holdings of land by the the eighteen planters are given at 6907 acres—an average of 383.7 acres each. The total number of rubber trees planted, not including what may have been set out in the summer of 1901, was 372,000—an average of 20,666 trees per planter. The number of trees per acre varies, but assuming an average of 300, gives an aggregate of 1240 acres, or an average of 68.8 acres in rubber for each plantation. Additional planting was in prospect, for the 1901 season, of 32,500 trees. The various planters gave their former residences as follows, some of them still retaining homes in the states and cities named:

| | | |
|---|---|---|
| Maine ..... 1 | Chicago... .. 1 | Louisiana ..... 1 |
| New Hampshire. 3 | Maryland .... 1 | Texas ..... 1 |
| Rhode Island.... 1 | Missouri... . 2 | Newfoundland.. 1 |
| New York ..... 2 | California.... 3 | Not stated ..... 1 |

Our informant prefers not to give, for publication, the names of the several planters, with the extent of their work, for the reason that his information was not, in every instance, derived from first hands, and he might in some cases have underestimated the amount of planting done. These estimates do not embrace the planting done by any of the large companies that have offered stock to the public.

## TABASCO AGRICULTURAL CO.

[Plantation "Tacotalpa," state of Tabasco, Mexico. Office: No. 208 Parrott building, San Francisco, California.]

A NEW company, incorporated in California, to develop a tract of about 15,000 acres, at Tacotalpa, in the district of the same name, in Tabasco, Mexico. Capital stock, $100,000. Officers: General *R. H. Warfield*, proprietor California Hotel (San Francisco), bank director, etc., president; *Joseph Naphtally*, lawyer and capitalist, vice-president; *J. Dalzell Brown*, manager of a trust company, treasurer; Colonel *J. F. Burgin*, a railway official, secretary—all of San Francisco. *Frederick H. Colburn* is assistant secretary and general manager at the office above named, having been formerly in the lumber export trade in Mexico. George B. Ingram, resident director on the plantation, and James Carter, superintendent, have each spent several years in Mexico, engaged in business which gave them an opportunity to become acquainted with tropical planting. For the first development work 2200 acres have been selected, of which it is planned to plant 1600 acres in rubber—not less than 300 trees to the acre; 400 acres in cacao; a few acres in vanilla and the remainder in corn and other crops giving quick returns. To provide the necessary funds, 2000 "plantation shares" are offered for sale, at $240 each, payable in instalments within five years, these not being shares of stock, but representing the right of the purchaser to share in the profits of the plantation to the extent represented by his holding of certificates. Part of the Tacotalpa plantation had been developed before being acquired by the new company, and embraces 5000 cultivated rubber trees 5 years old and 5000 younger ones, with some bearing cacao trees, etc., from which sources and from "short crops" it is expected to pay dividends before the new planting of rubber will become productive. These details are derived from the company's prospectus. THE INDIA RUBBER WORLD has already quoted from a report by Mr. Colburn, named above, on rubber planting in Mexico, before the formation of this company.

## MEXICAN PLANTATION CO. (PHILADELPHIA.)

[Plantation "Philadelphia," department of Palenque, state of Chiapas. Offices: No. 725 Drexel building, Philadelphia.]

THE second annual "inspection" of this plantation was made by the Rev. Dr. Charles C. Lasby, a Brooklyn pastor, chosen by the stockholders as their representative, and sent to Mexico at the company's expense. His report has been printed in a pamphlet of 39 pages, embellished with photographic views of the plantation, but what he writes has to do more with "the rapture of recollection in the traveler" than with practical information for the investors who remained at home. With regard to rubber, Dr. Lasby states that 900 acres have been staked and planted (in the open), at the rate of 315 trees per acre, which will yield, at the end of seven years, an average of 3½ pounds of dry rubber, worth 40 cents a pound on the estate. This yield will be "nearly doubled" at the end of "five or six years," when "the market value is apt to be much higher." Without knowing Dr. Lasby's qualifications as a prophet, it is difficult to gage the value of his report. It would be interesting to know whether he would have prophesied the same results, standing on the Brooklyn bridge at midnight, that he foresaw while the white heron and aigrets encircled him in their graceful flight along the rio Michol. On some other points of present interest Dr. Lasby is more definite. He reports that last year's tobacco crop was sold for $4500; that the product of 700 acres of corn is being sold as required by the labor on the plantation; and 37 acres in pineapples are expected to come into bearing this year—which "side crops" provide for dividends on the company's investment shares pending the development of the rubber trees. All the company's shares are reported to have been subscribed for and apparently much development work has been done.

## BOSTON TROPICAL CO.

[Plantation near the "Dos Rios" properties, state of Oaxaca, Mexico. Offices: No. 161 Summer street, Boston, Massachusetts.]

INCORPORATED September 30, 1901, under Rhode Island laws; capital, $300,000. Have purchased 2500 acres from Harry W. Barclay (a Newark, New Jersey, man), who owned the property seven years and will be the manager in Mexico. Land cost $50,000; coffee and rubber stock and improvements cost $25,000; the company have $35,000 in cash. These assets and whatever improvements may hereafter be made have been deeded to the Manufacturers' Trust Co. (Providence, R. I.) to secure an issue of 6 per cent. first mortgage improvement development bonds, of $500 each, offered for sale and to be paid for in yearly instalments of $60. One share of stock is issued with each bond; the bonds are to be retired as soon as the income from the plantation will admit, after which the profits will be divided among the shareholders. It is planned to

plant 1000 acres in coffee and 1000 acres in rubber, the remaining 500 acres to be devoted to pasture, corn, sugar cane, nurseries, buildings, and 50 acres in vanilla. There are now standing 50,000 coffee trees four years old, expected to yield a crop this year, and 2500 rubber trees three years old; also, some pineapples and bananas, together with enough corn for the needs of the plantation. The officers are: *F. W. Tillinghast* (lawyer and cotton manufacturer, Providence, R. I.), president; *C. F. Edgarton* (manufacturer, Shirley, Mass.), vice president; *W. H. Chase* (manufacturer, Leominster, Mass), second vice president; *Alfred N. Leitch* (manufacturer, Leominster), secretary and treasurer. The manager at the head office is Charles A. Devereaux. The plantation superintendent is T. E. Rivers, who has been on the ground for four years.

### SUN AND SHADE PLANTING FOR RUBBER.

THE illustration at the foot of this page has been supplied by Mr. Maxwell Riddle, of the Obispo Rubber Plantation Co., who also contributes to THE INDIA RUBBER WORLD the following comment upon it:

"There has been much discussion among rubber planters as to the advisability of planting *Castilloa elastica* in the sun or shade. It is admitted that the cost of planting in the sun is much greater, owing to the rapidity with which the weeds grow, which increases the cost of keeping the young plantation clean, but it seems not to have occurred to the advocates of shade planting that if the weeds grow faster in the sun, the rubber plants will also grow faster. The company developing the Obispo plantation made an experiment last year with the object of comparing the two systems. There seem to be two principal points to determine: (1) under which method trees will grow more rapidly; (2) given two trees of the same age, one grown in the shade, and one in the sun, which will yield more rubber? The experiment was designed primarily to settle the first point. The company planted two nurseries, in the sun and in light shade, respectively, both planted at the same time and with the same care. The two accompanying views, from photographs taken about five months after planting the seed, indicate the result. The man's hat lying on the ground in the view to the right shows the size of the plants grown in the shade. The boy standing in the other nursery shows the height of plants grown in the sun, there being a difference of fully two feet in the average height of the plants in the two nurseries. Regarding the question as to the ultimate yield of trees grown under the two systems, it is generally admitted that a brash or sappy rubber tree will yield more than a hard, thin barked tree. The desired result can be obtained only by shading the trunks of the trees. It was observed in the nursery grown in the sun that where the plants were so close together as to shade each other they answered the former description; whereas when they happened to be scattered they were hard and woody. The management of the company, therefore, are led to conclude: (1) That in order to get the size and quick growth desired in seven years, the trees must be planted in the sun, and (2) that, to keep the trees soft and sappy, they should be planted to the number of 400 to the acre during the first years of their growth, so that they will shade each other, the trees being thinned out at five or six years. This experiment would seem to support the theory that a wild tree growing in dense forest shade, without attention of any sort, will not attain full maturity and maximum capacity of yield under at least thirty years, as against fifteen years for cultivated trees."

### THE MERIDEN RUBBER PLANTING CORPORATION.

[Office: Meriden, Connecticut.]

INCORPORATED January 23, 1902, under Connecticut laws; capital, $30,000. Officers: E. W. Smith, M. D., president; D. C. McMahon, D. D. S., vice president; F. E. Bemis (superintendent of an organ factory), secretary; Frank A. Stevens (member of an insurance firm), treasurer—all of Meriden, Connecticut. At the first meeting of the incorporators $20,000 of the capital was subscribed. J. Herbet Foster, of Meriden, proprietor of The Rubber Alphabets Co., has been appointed general manager, with authority to proceed to Mexico and locate and develop a rubber plantation, with a view to a larger investment being contingent upon the success of the first undertaking. Mr. Foster was mentioned recently in THE INDIA RUBBER WORLD as having spent several months in investigating private rubber plantations in Mexico, and he is understood to hold options on desirable small estates in Vera Cruz.

### PORTUGUESE EAST AFRICA.

THE British vice consul at Inhambane, in an official report, mentions a rubber plantation started near that port in 1900, "where already there are some 200,000 trees in a fine healthy condition, many scarcely a year old already being over ten feet in height. The plant [known locally as the "circa"] appears to grow with extraordinary rapidity, and in all situations, whether on low lying lands, or on the sides of sandy hills." It is mentioned that many such trees, planted several years ago, have attained considerable size, though the yield of rubber as yet has been very small, which the vice consul thinks may be due to want of experience on the part of the "tappers."

RUBBER NURSERY PLANTED IN THE SUN.—NURSERY PLANTED IN PARTIAL SHADE.

## THE GRADING OF BALATA.

IN the last INDIA RUBBER WORLD appeared a communication from a manufacturer suggesting the desirability of a closer grading of Balata. There has since been received a letter from a house in Europe, engaged to an important extent in handling Balata, from which we quote:

"We have had considerable experience in sheet Balata, particularly in the Surinam product, and we must say that as far as Surinam sheet Balata is concerned, we have found the quality as a whole very regular and reliable. Two years ago there appeared some very thick sheets, which were not entirely coagulated at the thickest spots, and of course this was not desirable, as the milky stuff inside flowed off when the Balata passed through the rolls, but measures were at once taken in Surinam to prevent this, and we have since had no reason for complaints.

"At times we find some sheets which have a sandy surface on one side, which comes from the collectors not drying the Balata upon leaves, as should be done, but upon the sand. It appears that in some instances this is unavoidable; besides it is of little importance as affecting the quality of the Balata, and buyers do not object to it, for this reason: They know that there are some sandy sheets, and make their calculations accordingly. It is only a matter of loss in washing, for the sand is not mixed with the Balata, only adhering to the outside.

"It should be understood that all this relates to Surinam sheet Balata, which we consider a little better quality than the Demerara sheet. In the latter there are more thick white sheets (Surinam is red or reddish brown, as a rule), and more sandy pieces, and for this reason Demerara sheet is graded on arrival in two qualities, known as 'Pile 1' and 'Pile 2,' the latter comprising the thick white and sandy sheets. Contracts for Demerara sheet are thus made at two prices, the difference being about 2½*d.* or 3*d.* per English pound,

"On the whole, we believe that Balata is a pretty reliable material—at least sheet Balata, the form of which precludes the idea of adulteration. But the same thing cannot always be said of Venezuela block Balata, about which there are at times serious complaints of adulteration. We now take the precaution of having every block cut through on delivery. Importers also try to help the matter by adopting the Surinam method of collecting—in sheets—and we have seen some small parcels of Venezuelan sheet Balata which showed a considerably improved quality, although the material itself remains always inferior to the produce of the Guianas."

* * *

WE have also a letter from a factory in Europe long established in the production of Balata goods, intimating that no cause exists, in their opinion, for desiring a closer grading of Balata than hitherto.

A German manufacturer writes to THE INDIA RUBBER WORLD that he does not agree with the writer in the last number of this paper, that sheet or block Balata is coming to the market in different qualities. On the European markets, he says, the sheet Balata is preferred, and costs more than the block Balata. The best comes from Surinam, though good lots are received sometimes from Demarara. It is yellow and clear, while the block Balata is gray and not so pure as sheet.

An importing firm in New York states that for ordinary requirements in the United States the Venezuelan block Balata suffices, while for finer work Surinam sheet is called for, graded as "Pile 1" and "Pile 2," with sometimes a special grade of "highest quality," which is amber colored.

Another New York importer says that the average value of sheet Balata has been about 50 per cent. higher than block, on account of being better dried.

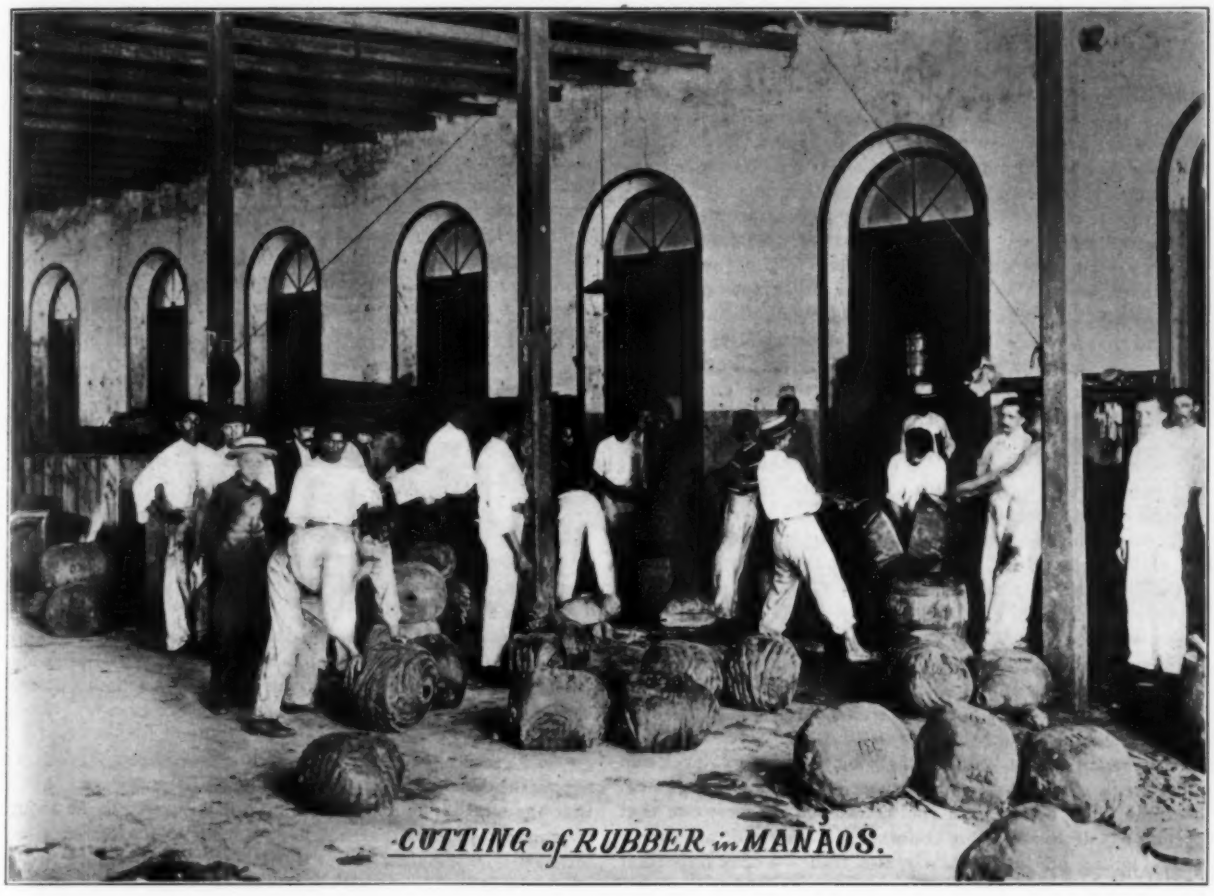
An American engaged in the Balata trade in Venezuela and who has been experimenting with the production of Balata in sheets, informs THE INDIA RUBBER WORLD that the Balata cured in this form in the sun was dark in color, while the sheets formed under sheds, and protected from the sun's rays, was whiter. He regards as impossible any such supervision of the native workers as would result in cleaner Balata, though the sap might be strained before curing, to get rid of fragments of bark and the like.

## RUBBER STEALING IN RUSSIA.

THE *Düna-Zeitung*, of Riga, in discussing the thefts of goods in transportation on Russian railways and shipping lines—impossible to suppress wholly, with the utmost precautions—says: "There is, above all, one article made apparently for the purpose of robbery—the most valuable kind of crude rubber, the so-called Pará rubber, coming from Brazil. It is valuable, one pound costing about 2 rubles. On account of its manifold usefulness it can easily be converted into money. It is difficult to prove its identity, because one piece looks like another, and it cannot be proved whether the rubber found in the possession of a suspected person is exactly the one stolen out of a certain lot. Although the leading rubber manufacturers have taken concerted action to check the stealing of crude rubber, and the dealing in stolen goods, yet there are so many subsidiary trades in which Pará rubber may be used—in the cloak manufacture, and the repairing of goloshes and pneumatic tires, etc.—that stolen rubber is almost certain to find a market, in small lots, in such towns as Reval, Dwinsk, Wilna, Polosk, etc., where the trade in such material is carried on openly."

The rubber consumed in Russian factories comes mainly from London, by sea, landing at Riga, Libau, and St. Petersburg. The newspaper above quoted says that lower sorts are not molested, because less readily marketable, but that the thieves can distinguish the Pará rubber by means of the cases in which it is packed, and it is seldom that a lot arrives without having been broken into. For a long time the parties who suffered the loss endeavored to find out where the stealing occurred, and who could be made responsible for it. The customs officials proved that they had delivered the weight received; the English shippers proved the correctness of the weights as inserted in bill of lading before the boxes went on board ship, and the ship captains—why of course nothing could be stolen under them; their sailors were men of honor. The shipowners, of course, sided with their captains.

Quite accidentally a clue was discovered lately to the methods of the rubber thieves. The English Wilson line steamer *Rinaldo* was unloading coal at Mühlgraben, the coal being hoisted from the hold in baskets and turned into a wooden chute through which it was conveyed on shore. A customs officer was surprised to see one large piece of coal suddenly leave its place in the chute, give two or three bounds, and spring overboard, where it floated on the water. He had the strange object picked up, when it proved to be a ball of Pará rubber, weighing about 18 pounds. A search of the coal cargo revealed many more such balls—about 288 pounds in all, abstracted from a lot of rubber carried by that steamer for two local factories. Evidently the rubber had not been abstracted and mixed with the coal before the rubber cases were brought on board, nor had it been done by the local laborers during the unloading. Steps will now be taken to protect rubber shipments while at sea.



CUTTING of RUBBER in MANAOS.

## VIEW IN AN AMAZON RUBBER WAREHOUSE.

THE illustration on this page gives a view in the warehouse of the long established rubber exporting firm of Witt & Co., at Manáos, on the Amazon, the political and commercial capital of the Brazilian state of Amazonas. A force of laborers is shown cutting open the large balls of fine rubber, in order that the quality may be graded, and to facilitate the packing of the rubber in cases, to say nothing of keeping a lookout for concealed substances other than rubber. The work is not easy, as one will appreciate who has had any experience in separating even a small sample of rubber with a knife, and the laborers employed are a stalwart class. The amount of such work is indicated by the fact that the Messrs. Witt handled during 1901 more than 7,000,000 pounds of rubber.

The responsible members of this firm are Messrs. N. H. Witt and José de Figuenedo. The firm have always been intimately connected with the Pará house of Frank da Costa & Co., whom they represent in Manáos. The growth of the rubber exporting trade in Manáos has been phenomenal, until every important house in Pará either maintains a branch at this growing up-river center, or is closely connected with a Manáos firm. The latest statistics issued by Frank da Costa & Co. of Pará (for 1901), compared with a similar statement issued by their predecessors La Roque da Costa & Co. (for 1893), make the following showing of the total exports via the Amazon river, and the share exported direct from Manáos—in kilograms:

| | Total Exports. | From Manáos. |
|---|---|---|
| 1893..... | 19,144,057 | 4,743,752 |
| 1901..... | 30,131,854 | 15,469,395 |

In the former year the house of Da Costa was represented up the river by the Banco de Manáos, who were credited with the export of 1,021,680 kilograms. The name of Witt & Co. soon afterward appeared in the list of exporters, and during 1901 they shipped 3,271,316 kilograms—of which 1,189,830 to Europe and 2,081,486 [=4,579,269 pounds] to the United States. During the former year the Da Costa firm were buyers on the Amazon for the large factories of Joseph Banigan and the Boston Rubber Shoe Co.

### RUBBER EXPORTS FROM ECUADOR.

THE Guayaquil chamber of commerce reports:

| | 1897. | 1898. | 1899. | 1900. |
|---|---|---|---|---|
| Pounds..... | 1,121,288 | 1,588,660 | 1,441,823 | 1,103,511 |

The president of the chamber says, in his report: "The decrease in rubber is a proof that it is not properly attended to. The parties of rubber seekers (*caucheros*) who have started work in the wild forests of the interior and the oriental provinces are not assisted by any facilities, and they return exhausted. Owing to the fact that the consumption of this gum is extending so much, I think it is time to ask from the government every possible aid from the explorers, beginning by the opening of routes to the producing places."——The export duty on rubber was reduced from 20 cents to 15 cents (silver) per kilogram, equal to about 3⅛ cents (gold) per pound.

## CYCLES, AUTOMOBILES, AND TIRES.

ACOUNT of the automobiles seen on upper Fifth avenue, in New York, on the afternoon of January 20, between the hours of 2 and 7, showed 176 going uptown and 144 coming down—a total of 320. While it is probable that many of these were counted twice, still these figures, for a single thoroughfare, would indicate that the new vehicles are becoming numerous enough to make an important demand for rubber tires. A report has been current of a contract completed by one rubber factory for $50,000 worth of tires for a public motor vehicle company in New York. While the heavily capitalized electric vehicle companies organized in various cities by stock jobbing interests have gone out of business or reduced their capital to an honest basis, the business of manufacturing automobiles appears to be extending. Recently the American Bicycle Co. divided its business, one branch to be devoted to making and selling automobiles, which is regarded in some quarters as indicating an ultimate intention of the management to devote itself principally to the new industry, and possibly to bring about a combination of the strongest elements in that branch.

As for the bicycle industry, it was stated at a recent meeting of the Miami Bicycle Co. that the number of bicycle factories in the United States had declined from 288 on January 1, 1900, to 69 on January 1, 1901, and to only 24 on January 1, 1902. THE INDIA RUBBER WORLD is informed that in a certain city of 200,000 inhabitants, there were at one time estimated to be 10,000 bicycles owned, the streets and parks were crowded with wheels, and there were fifteen bicycle stores doing business, together with as many other stores handling bicycles, and numerous repair shops. Now a single bicycle store suffices, and a bicycle is seldom seen on the streets. This may be an exceptional case, but it is in the knowledge of every one that cycling has declined in this country, and one result has been a heavy falling off in the bicycle tire trade—a once important branch of the rubber industry.

At the New York cycle show of 1895 there were 22 separate exhibits of tires, made in 19 factories, a single one of which embraced twenty different "styles." At the 1897 show 28 exhibits were made, representing again 19 factories. To-day only eleven rubber concerns are named as "active" licensees under the Tillinghast single tube tire patent, several of whom are more active in pushing their trade in the motor than in the cycle trade, and some of whom are making very few tires for the latter. Besides, two rubber factories are making tires to which the Tillinghast patent does not relate. But the field has been deserted by certain concerns which, five years ago, were large manufacturers of bicycle tires.

Time was when the large and elaborate catalogues of the bicycle manufacturers devoted much space to the subject of tires. This year, an examination of the more modest booklets issued by the constituent companies of the American Bicycle Co., with a single exception, fails to disclose any mention of tires except in the briefest manner, in small type, indicating what makes of tires the buyer of any particular wheel may choose from. The evident purpose is to sell wheels, not tires; if one will only buy a wheel, he can have almost any kind of tire. And no doubt the average buyer is concerned less about the kind of tire than about its cost.

The bicycle appears to have held its own better in Europe. Victor Breyer, a French cycling journalist visiting America, told *Bicycling World* that a million bicycles are in use in France and that the number increases yearly, for both business and pleasure. Many small manufacturers have gone out of business, but the larger concerns, with ample capital and factory facilities, are reported to be in sound condition. A French government report for 1900 recorded that the number of registered bicycles in that country amounted to 975,878; motor cycles, 11,252; and motor cars, 5286. The maintenance of two bicycle shows in London is regarded as proof of a continued interest in cycling in the United Kingdom. While the number of exhibitors of late has been smaller than formerly, there was a gain in the total number of wheels exhibited, from 1779 in 1900 to 1866 in 1901—according to the *Cyclist*.

But the European demand has been supplied with a decreasing assistance from American factories, involving no doubt a declining export of American cycle tires. The value of total exports of "Cycles and parts" from the United States for the past five years has been:

| 1897. | 1898. | 1899. | 1900. | 1901. |
|---|---|---|---|---|
| $6,902,736 | $7,092,197 | $4,820,284 | $3,061,061 | $2,599,237 |

The only country buying American bicycles to which the exports were not smaller last year than in 1899 was Japan, which took $223,787 worth as against $138,155 in the former year.

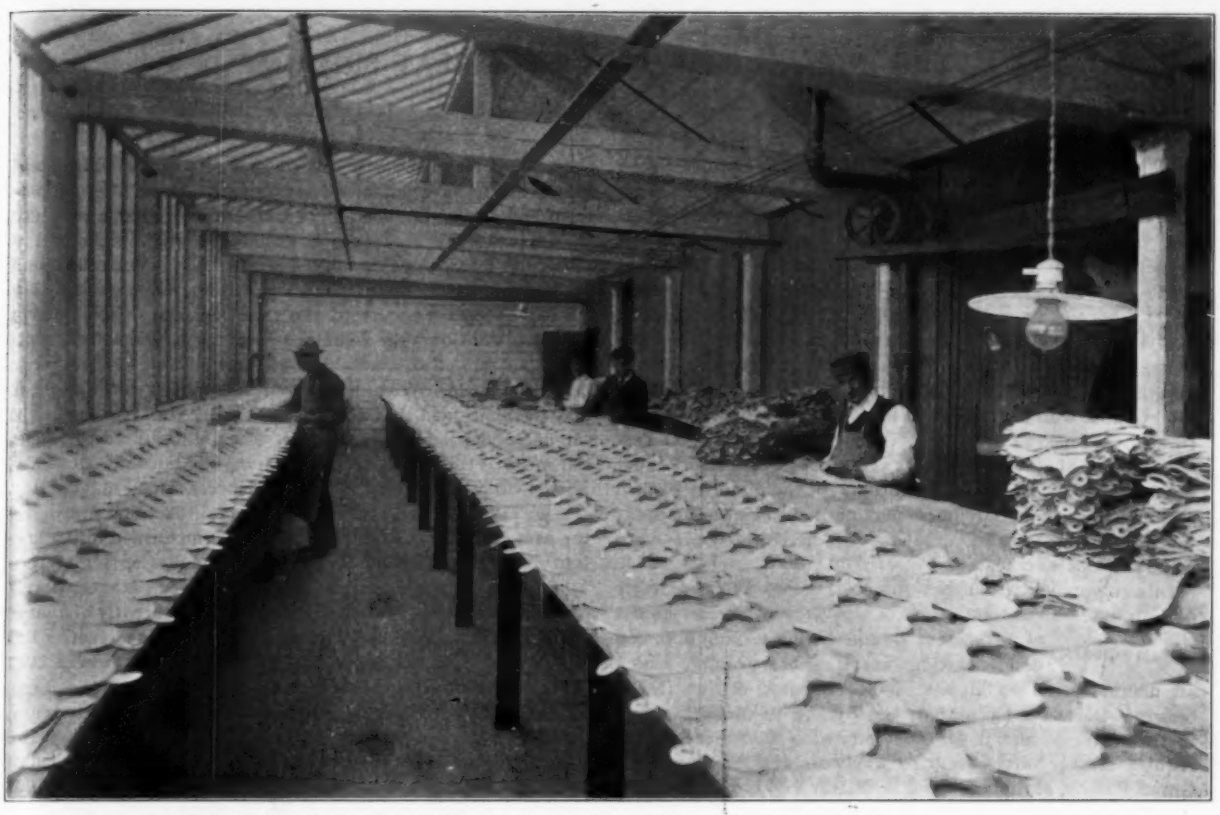
## TRADE WEST OF THE MISSISSIPPI.

IN regard to the rubber footwear and mackintosh trade in the territory of which Omaha is the center, Z. T. Lindsey, president of the Inter-State Rubber Co., of that city, informs THE INDIA RUBBER WORLD:

"The territory in which we work includes all the states and some of the territories from fifty miles west of the Mississippi river to the Pacific coast. Early in December there was a very bad spell of weather—not much snow, but it was very cold for several days—which created a great demand for the kind of goods we sell. There was difficulty in getting enough goods to supply the demand up to and including Christmas week. After that the weather moderated, and January proved to be about the mildest January that has been known in the territory referred to. A remarkable fact is that there has not been up to this time [February 8] very much snow in any of the mining districts, the only exception being an early snow in northwestern Montana, which soon disappeared. The dullest trade in our line of goods and the poorest collections this year are in the mountain and silver mining country.

"Our customers claim that they are expecting to carry over three-fourths of the goods which they bought from us last summer and fall. But as there can be a great deal of winter weather in that particular section of the country between this date and April, we hope the retail dealers will dispose of all their goods before another season. The cold weather and snow that came about three weeks ago through Iowa, Missouri, Kansas, Nebraska, and South Dakota caused quite a good demand on the retail dealers for goods that they had on hand. It has made a steady demand on jobbers for sorting up goods, and indirectly has helped the jobbers and directly been a great benefit to the retail dealers. No doubt the retailers will dispose of half to three-fourths of the goods which they bought for the present winter. Owing to the mild January referred to, collections have not been quite so good with us as last year, but the only failures have been of firms who wanted to fail.

"On account of the high prices of all kinds of grain, hay, and live stock, the western country is in an unusually prosperous condition, and the people have plenty of money to buy anything they need; therefore a better class of goods is being sold in all lines. Dry goods, clothing, and leather boot and shoe dealers claim that they have never sold as many high cost goods in this section of the country as they have sold during the past few months, and we believe this to be true."



THE SUNNING OF VULCANIZED RUBBER GOODS.

IT seems to be the general impression throughout the rubber trade that the solarization of rubber goods has ceased. As far as the gossamer waterproof fabric goes, this is practically true, but the sun finish on vulcanized rubber goods of many kinds, not only is continued, but is done on a larger scale than ever before. A great many surface goods, both in wearing apparel and in sheetings, are exposed to the sunlight after they come out of the heaters for a final surface finish. It is in the line of druggists' and surgical sundries, however, that the best effects are obtained. This is probably because every up-to-date factory has a room, usually on the roof, fitted with a heavy glass that diffuses both the light and the heat rays over the rubber surfaces that are exposed on the tables beneath. The illustration shows the interior of the sunning room at the factory of the Seamless Rubber Co. (New Haven). The goods here shown are water bottles, which are exposed to the rays of the sun for several hours, the object being to whiten them and incidentally to give them the velvety softness to the touch which the exposure does as nothing else can. It is interesting to note that white goods are not the only ones that are thus exposed. Some of the very best grades of red goods, particularly for surgeons' use, are thus treated as a final finish. It will be seen, therefore, that the general belief that the rays of the sun are injurious to all vulcanized rubber is not correct.

## RUBBER HOSE FOR BREWERIES.

A GOOD deal of rubber hose or piping is required in one way or another by most breweries, and, owing to its limited "life," forms a not inconsiderable item in working expenses. We consider it a mistake to employ long lengths of rubber piping for racking beers or running worts; for not only does old rubber tend to give a decided flavor to beer, but it is also difficult to keep clean and sterilized, and can be replaced by copper piping at an ultimate saving of cost. In the case of hose pipes for washing purposes, rubber is practically indispensable and the wear and tear is very considerable; for not only does it become worn by friction upon the floors, and upon the sides and edges of vessels, but also by the amount of kinking which it undergoes in being moved about or coiled and uncoiled by workmen. The usual plan adopted by a workman to untwist a kink is either to give a vicious pull at the pipe or to swing the whole thing around in the wrong direction, which cracks and gradually tears away the rubber. For general use we find the wire-wrapped hose to stand more wear and tear, and to last much longer than the plain hose; for not only is the rubber protected, but kinking is almost impossible either at the place where it is attached to a tap or in the course of its length. Rubber hose when not in use should never be left lying about, nor be hung up on nails and pegs, but should be coiled upon a wooden saddle provided for the purpose. Here, again, however careful workmen may be, a fairly wide hose of, say, 2 inches diameter, becomes flattened when hung up, by reason of its own weight, causing the rubber to crack. Wire-wrapped, or "sphincter" hose as it is called, coils easily upon a saddle and cannot become flattened, thus, in another way, preserving its existence. Sphincter hose is more expensive than plain hose, but is more economical, because the extra cost is fully made up by increased durability.—*Brewing Trade Review.*

# THE INDIA-RUBBER TRADE IN GREAT BRITAIN.

*By Our Regular Correspondent.*

IT is not particularly easy to get at accurate statistics, even if such were really worth the labor of obtaining, but there can be no doubt that the present winter, with its numerous snow falls, has done a good deal to popularize the rubber shoe in this country. Retailers' stocks, especially in London and the suburbs, have been quite unequal to the sudden demands which been made upon them. No doubt the inadequacy of the cleansing arrangements of our streets, productive of so much ire to the suburban resident particularly, is looked upon with a lenient eye by those who are interested in the sale of rubber footwear. Ladies still remain the principal customers, for although a certain number of elderly men wear the rubber boot as an addendum to the ordinary one of leather, yet the majority of men customers use them only in connection with the evening outfit —a point generally urged in disfavor being the tendency to make the foot overheated.

RUBBER FOOTWEAR.

I HAVE received from Mr. Joseph Thomas Wicks a neatly got up pamphlet descriptive of the properties and merits of his patent double acting mixing mill, and double acting waste rubber grinder, which are manufactured by Messrs. James Bertram & Son (Edinburgh). Reference has already been made to these machines in this column, and it will suffice now to advise those who require further information to apply to the patentee at 6, Grand Parade, Haringay, London, N., for a copy of the pamphlet, which enters into full details. The saving of manual labor which is a feature of these machines is, as we have recently experienced, in the engineering and boot trades, not altogether appreciated by the British workman, but it is certain that this adoption of American principles, which is as yet in its infancy, will increase to much larger proportions in the near future; and indeed it is obvious that the antagonism evinced by the British workman is really a shortsighted policy and not conducive to his best interests in the long run.

WICKS'S PATENTS.

THE manager of one of our largest concerns in this branch says that, although trade has been good during the last twelve months, yet the fine dry summer has caused a considerable diminution of profits. The business is now carried on in a very hand to mouth way; neither the retail shops or the wholesale houses keep any stock to speak of, compared with what was formerly the rule, and the present conditions are much more onerous to the works management who have to be prepared to fill all sorts and conditions of orders at express speed. To pass on the expression of a harried works manager, the business with its continual change of conditions and alterations in patterns and styles is "quite sickening" and no doubt there are others holding managerial positions who will endorse this opinion. Following the lead set a year or two ago by Messrs. Mandleberg, Frankenburg & Co., Limited, are about to start a factory in Hamburg for making up waterproof garments. Probably shipping facilities have as much to do with this as the development of Continental business, because the mackintosh has never attained the popularity in Germany which attended its introduction in Great Britain. I have often, however, heard a high opinion expressed on the continent for the British make, and have listened to the complaints of Germans at the duty they have had to pay when taking such goods home from England; therefore it may be that a British descent on the Fatherland may prove to have sufficient justification. As a rule the patterns and cloths produced in Yorkshire are open to purchase by any waterproofing factory, which of course precludes any particular firm from claiming a specialty. It is not at all usual for weaving to be carried on at the rubber works, though a notable exception occurs in the case of Messrs. Mandleberg, who do a considerable amount of weaving of special patterns both in wool and silk, of which of course they have a monopoly in the trade. With regard to developments in the trade, it may be mentioned that a new firm is about to tempt fortune in the neighborhood of Manchester, though not on a large scale, but more of this anon. A new making up house is Messrs. I, Kriegsfeld & Co., Limited, of 112 Princess street, Manchester. dealing in rubber and rain proof garments. Another firm doing the same class of business has recently been formed into a limited company under the style of the Manchester Waterproof Manufacturing Co., Limited, 28, Dutton street, Manchester.

WATERPROOF GARMENT TRADE.

I REGRET to say that under the pressure apparently of a large creditor of some prominence in the rubber trade a receiver has been appointed to these works, where ever since its connection with the cycle tire business, troubles seem to have been more or less acute. In the earlier days of the factory, when the proprietors were Mr. Cohen and Mr. Cresswell, a good deal of money was made, but of late years this era of prosperity has been succeeded by one in which disputes and lawsuits have been upleasantly prominent. Mr. Cresswell is now the proprietor of the Cheshire Rubber Co., whose works are situated about a mile distant from those of the Imperial company.

HYDE IMPERIAL RUBBER CO., LIMITED.

THE *Philosophical Magazine* for last November contained an article entitled "On the Resistance of Dielectrics and the Effect of an Alternating Electromotive Force on the Insulating Properties of India-rubber," by A. W. Ashton, B. SC., and it will no doubt prove of interest to those in the trade sufficiently cognizant with electricity to understand the technical terms. I do not propose to occupy my limited space by entering on a discussion of the paper here, though I cannot refrain from a comment or two. It would have been more interesting from a technical standpoint, if the rubber designated as "No. 1," and which proved much superior to pure Pará, had been more clearly described; we are left quite in the dark as to whether it is a pure rubber or an admixture. I doubt if pure Pará is as generally used in insulating as the author supposes; there does not seem to be much of it in the compound rubbers. His conclusion is, that in presence of air, pure Pará deteriorates, but then the great bulk of the Pará which is used is in the form of strip as a first coating for the wire, and in this position it can hardly be said to come in contact with the air. That pure Pará is rapidly destroyed by ozone, has, of course, been shown long ago, and it certainly would seem that the No. 1 rubber which is stated not to be affected by ozone, is either highly compounded or is not rubber at all. Of course, this is only presumption; but it is somewhat novel and disquieting to hear of Pará rubber ranking after other sorts in any of the uses to which rubber is put. With regard to rubber insulation generally, it seems that great differences of opinion exist amongst our cable manufacturers as to the degree of compounding, which is desirable,

RUBBER AS AN INSULATOR.

or else the question of price reigns supreme, I don't pretend to know which. Thus the compound rubber used by one firm contains 70 per cent. of mineral matter, while that of another contains 40 per cent. and mineral of a different nature too. The battle of rubber versus paper which has been waging for some years, cannot be said to have ended, advocates of both dielectrics being strongly in evidence. With regard to rubber, the question of the overheating of the mains by leakage of current is an important one, and in a recent case where newly laid rubber cables have come in for scathing abuse, it seems to be, from the facts as made known to me, that the fault lay with the engineer rather than with the cable manufacturer.

TIRES.

So far the expected motor tire which is to eclipse all others has not made its appearance from the Birmingham works; in the meanwhile the laurels gained by Michelin & Co. seem to be somewhat threatened by the progress which the tire turned out by the Continental company, of Hanover, has recently made in popular favor. Up to recently only the inner tubes made by this firm have been sold in Great Britain; now, however, an arrangement has been come to with the Dunlop company that the complete tires may be sold, the Dunlop company receiving a royalty on the sales.

NEW YORK TIRE CO.

WITH respect to the formation of a company under this name in London, in connection, I understand, with the New York Belting and Packing Co., Limited, some confusion seems likely to arise with regard to correspondence, unless strict attention is paid to the exact title, there being another London firm with a very similar appellation. This is The New York Wheel and Rubber Tyre Co., of 327, Kennington lane, which is owned by Count De Nevers and has no connection with New York at the present time, though I believe that at one time the wheels to which the firm attach their tires were of transatlantic origin.

MESSRS. HORSFALL & BICKHAM.

THIS firm, so long well known in the card cloth and wire trade, has opened a new department for the manufacture of motor cars, Mr. J. Kennedy, one of the partners in the firm, and who is a mechanical engineer by training, being the prime mover in the new venture. From what I hear the "Harbeck" car, which they are now making, has a future, combining as it does the principal features essential to success in this class of work. The manufacture will be carried on at the same address as the card cloth business, at the Bridgewater works, Pendleton, Manchester.

DR. C. O. WEBER.

PROBABLY no item of news of a personal nature has lately given rise to so much comment in the rubber trade, at least in the Manchester district, as the announcement that Dr. Weber had severed his connection with the firm of Frankenburg, with which, if I am not greatly mistaken, he has been associated for about ten years. It would somewhat transcend the limits of news proper, to say nothing of good taste, to enter here into the causes of Dr. Weber's somewhat abrupt departure from the firm mentioned, and of which it is understood he was a director; it will suffice to state the fact. With regard to the future, Dr. Weber has circularized several rubber firms to the effect that he intends to practice as a consulting expert in the rubber trade, which was about the most natural thing to expect, seeing that he has long acted in this capacity for certain firms. His connection with the scientific as well as the practical side of the manufacture should enable him to do better from a financial standpoint than have others who, owing to stress of circumstances, have essayed to win the suffrages of the trade under the easily assumed though rather vague and uncertain title of "rubber expert."

OIL OF CAOUTCHOUC.

IT is rather curious to study the vicissitudes which have attended the attempted introduction of this product into commerce. Every now and again one reads of some particular purpose for which it is preëminent, though it does not appear in any case to have fulfilled the expectations formed of it. Some ten years ago it was kept in stock by certain of our wholesale druggists, but now it cannot be obtained from them. One of the purposes for which it was recommended was that of preventing the rusting of firearms, and it was said to have been used to this end in Germany; my own attempts, however, to gain it a footing in England for this purpose brought me nothing but abuse, so I let it severely alone. I read now that it is proposed as one of the innumerable specifics for preventing the incrustation of steam boilers, though it is difficult to see how in the mechanical action it exerts it can compete successfully with cheaper materials.

SHORT MENTION.

ON January 21 a new departure was inaugurated at the works of Messrs. Charles Macintosh & Co., Limited, a social club for the benefit of the work girls being opened by Messrs. R. K. and H. A. Birley. This club is an advance on the ordinary dining room, as it is fitted up for recreation, and on certain nights in the week it is to remain open until 10 o'clock, under the superintendence of a lady connected with the parish. Perhaps more has been done in this way on the Continent than in Great Britain, and in this connection the arrangements made at certain German works recur to my mind. It would be ungenerous to attempt to pick holes in an arrangement made purposely to benefit those to whom the adage *res angusta domi* may fitly be applied; all the same it may be objected in some quarters that the atmosphere of a rubber works is not of the most salubrious character in which to spend the evening, albeit it has advantages in many respects over that of the music hall.——The works of the North Western Rubber Co., at Litherland, near Liverpool, are rapidly approaching completion. The name is a somewhat misleading one, as the rubber manufacture proper is not to be carried, but only the recovery business. Although no naphtha is to be used, and difficulties are not to be apprehended with the insurance people, yet the best means of protection against fire are being adopted in the buildings. The secretary and manager is Mr. Buckleton, and Mr. Riddle is the engineer in charge. ——At the last half yearly sale by tender of the condemned telegraph stores of the general postoffice London the amount of Gutta-percha offered was 25 tons. The figure at the previous sale was 39 tons. The average for some time has been about 40 tons, but no doubt, as was predicted in these notes some time ago, the onward march of the paper covered cable has had its influence upon the amount of Gutta-percha used for this purpose, and those who have been accustomed to buy Gutta-percha at these sales will not find this such a good source of supply in the future as it has been in the past.——Mr. Carroll for some time works manager at Messrs. Gotliffe & Son's, at Hyde, is now with Messrs. Ferguson, Shiers & Co., at Failsworth, Manchester.

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WHEN Gutta-percha tissue first came into use, Mr. Nat. W. Goddard, a well-known seller of tailor's trimmings in Boston, having quite an amount of it in stock, and being very proud of it, conceived the idea of draping his window with it, the strips being hung in long and graceful festoons. Early in the day the effect was very fine, but when the sun shone on his handiwork, it so softened the strips that they dropped in a sticky mass, incidentally ruining many other goods—just what any one familiar with the gum might have predicted.

# NEW GOODS AND SPECIALTIES IN RUBBER.

### THE "VENDOME" CLOG.

IT has been predicted for some time that the clog, formerly an exceedingly popular type of shoe, but which during the last year or two has fallen somewhat into disfavor, would regain its old time popularity. This prediction is rapidly being fulfilled, and there is good reason for it. A well designed clog is an exceedingly comfortable rubber, is very easily put on, and while it will not slip off, it can be kicked off without any trouble, and for city trade it is just the thing. The "Vendome" type of clog is so designed that once on the foot it fits perfectly and is free from the fault that many clogs show—that of gaping at the sides when the weight of the body rests upon the toe. [Wales-Goodyear Rubber Shoe Co.]

### GUTTA-PERCHA BELTING.

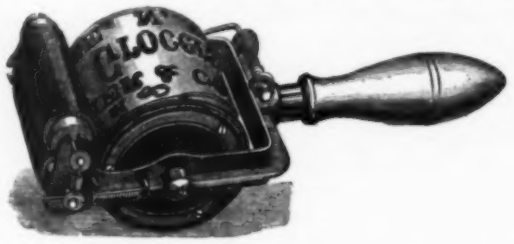
THERE is no doubt but that the Gutta-percha belt originated in the United States. Away back in the forties, when the Goodyear rubber vulcanization patents were in force, there were made at the Roxbury factory, belts wholly of Gutta-percha, with no plies of fabric at all. These belts were, of course, exceedingly stiff if exposed to the least cold, and were suitable only for warm, damp places. The legend is that they were used in certain salt mines. Later, when there came to be a distinct call for Gutta-percha belting, Forsyth's patented Gutta-Balata belt was put upon the market, and had a large sale, particularly in tropical countries. Of late certain lines of American industry have called for this belt, notably the paper mills, and a large amount of it has been sold. Two types of this belt are made: one for hot countries, where the plies are held together simply by the Gutta-Balata friction, and one for temperate climates, where the plies, in addition to the friction, are stapled together. The belting under discussion is seamless, can be run with either side next to the pulley, is unaffected by oils or grease, never requires dressing, and has practically no stretch. It is specially serviceable in warm moist places and is remarkably durable. [Boston Belting Co., Boston.]

### OILPROOF BALATA BELTING.

IN relation to a German patent [G. M. No. 157,-074], granted to Helmers and Renk, of Harburg on the Elbe, the *Deutsche Gummi-Industrie* (Dresden) says: "Balata belts, which are now well known, exposed to the influences of oils and grease, soon show signs of wear. We have before us a sample in which this defect has been remedied by having its outer surface covered by a layer of lacquer (brown in color, in the sample), which imparts to the belt, in its use as a power transmitter, greater durability and cleanliness than possessed by the belts made heretofore, without lessening in any way quality and usefulness."

### PRINTING WHEELS FOR SHEET PACKING.

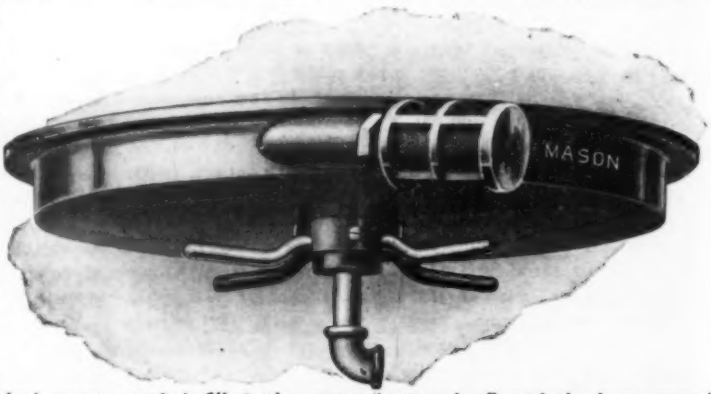
THE ordinary rubber stamp has broadened its field of usefulness so that its application has come to be almost universal.



One of the most interesting uses to which it is put is where the letters are distributed over a roll on which is hung a self inking device allowing it to do rapid and continuous work. The illustration shows such a device, that is now quite commonly used to put trade marks and brands on sheet packing. These wheels are made in three sizes and take a rubber die for No. 1—2¼×6½ inches; for No. 2—4¼×8½ inches; and for No. 3—5½×10 inches. [H. C. Dimond & Co., No. 22 Milk street, Boston.]

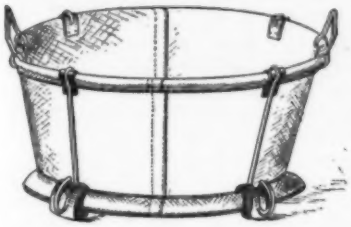
### THE MASON HOSE REEL FOR MOTOR CARS.

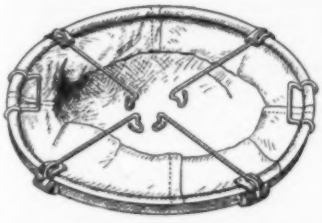
THE illustration represents a most complete arrangement for carrying suction hose on steam automobiles. It consists of a cylindrical case 12 inches in diameter by 1⅛ inch thick, which can be screwed underneath the bottom of the carriage, and holds 10 feet of rubber suction hose. The inner end of this hose is permanently connected to a revolving disk, which in turn is connected through a stuffing box by a pipe which attaches to an ejector leading to a water tank. To fill the tank, the hose is drawn out as far as necessary to reach the water supply, and steam is turned on the ejector. When the tank is filled, the steam is turned off and the hose wound up by turning the handles at the bottom of the case. By means of this device the motor water tank can be filled without even soiling one's hands or gloves, and without the annoyance of making connections to the tank. It is easily attached to the vehicle, is always in working order, and is neat in appearance. [The Mason Regulator Co., No. 158 Summer street, Boston.]



### RUBBER FOLDING TUB.

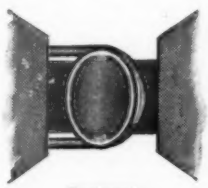
THE accompanying illustrations relate to a folding tub, preferably of rubber, patented in the United States by John A. Shearer, of Schenectady, New York. The idea is to produce a tub, bucket, or similar vessel, which shall be light, collapsible, and easily portable, at the same time being waterproof or watertight, and inexpensive. There are comprised two stiffening rings, surrounding the upper and lower ends of the vessel; a fabric forming the walls of the vessel and secured to said stiffening rings, the lower ring being of larger diameter than the body of the vessel and the hem having a hem or welt extending outward from the body at its lower end and receiving the lower ring; and ribs pivoted upon the upper ring and having their lower ends bent to form hooks adapted to engage the upper side of the lower ring, to hold the two rings separated—all of which may be seen in detail in the two engravings, one showing the form of the vessel in readiness for use and the other showing it when collapsed. The inventor is open to negotiations for the introduction of this article upon the market.





### NEW STYLES IN LADIES' FOOTWEAR.

IT is generally accepted throughout New England that the shapes of women's rubber shoes will lose the masculine appearance that they have had during the year past, the shoe last being straighter and much prettier. This will be accomplished by taking off the outside "swing." In the West, however, the broader shoe will undoubtedly be popular during the coming season. Misses' and children's shoes in all parts of the country will be broad and "common sense" in type. In men's footwear there will be no particular change for the coming season. What promises to be a popular innovation in ladies' goods will be the new Wales-Goodyear "Siberia" and "Moscow," four buckle and three buckle overs, only instead of the buckles they will have a new patent fastener that is very practical and tasteful. The buckle on a ladies' over is objectionable for the reason that it often catches on the skirt, while buttons either come off or are troublesome to adjust. The patent fastener or catch shown in the accompanying illustrations is adjustable to any size of ankle, is quickly fastened or unfastened, and cannot catch on the skirt. [Wales-Goodyear Rubber Shoe Co.]



Fastened.

Unfastened.

### THE "STANDARD FLANGE" FOUNTAIN PEN.

MR. RHODES LOCKWOOD, president of the Davidson Rubber Co. (Boston), is, as is well known, one of the proprietors of the Sterling Fountain Pen Co. It will interest the rubber trade, therefore, to know that the three suits of the L. E. Waterman Co., against Rhodes Lockwood and others, have all been dismissed upon the ground that the claims of the Waterman patents, if valid, are not infringed by the Sterling pen. In this connection may be described the latest type of Sterling pen, and particularly its newest and best feature, the standard flange. A cursory examination of the accompanying illustration will show one the value of the flange and its novelty. Of the lettered parts, *A* is the middle ink joint; *B* the inner extension of the barrel; *C*, screw threads joining barrel and section; *D*, conical ink joint receiving end of barrel extension; *E*, the feed; *F*, lower portion of barrel or section; *G*, flange joint at mouth of holder fitted into cap; *X*, vent hole in cap. The value of the flange *G* is that it holds the cap securely at all times by reason of the added bearing so near the middle of the cap. It also prevents the pen from being clasped so far down that the fingers may become soiled. Another, and equally good, feature is the absolutely non leakable middle ink joint, which prevents the sweating and overflow of the ink on the tapered end of the holder while being carried in the pocket. These pens are made in a great variety of styles, many new and beautiful designs having been recently added. [Sterling Fountain Pen Co. (Davidson Rubber Co., proprietors), No. 19 Milk street, Boston.]

### MACKINTOSH RAIN COATS.

FOR some time past it has looked as if the tailor made rain coat, with its swagger cut, fly front, turn up cuffs, slash pockets, and full skirts would drive the mackintosh entirely out of the field, but once again rubber has come to the front. The trouble with the rain coat has been, in the first place, that while it is shower proof, it is not really waterproof; in the second place, no purchaser is able to tell proofed fabrics from unproofed, and the result is that many garments have been sold as rain proof that have never been through any sort of process. Mackintosh manufacturers have therefore stepped in and made light and elegant

garments, double textured, of cloth closely resembling the rain proof fabrics, and are putting them on the market at from $5 to $10 to the consumer, as against $10 to $30 for the other goods. Two excellent types of such garments are shown in the accompanying illustrations—the ladies' "Automobile" coat and the men's "Marlboro" coat. [American Rubber Co., No. 101 Milk street, Boston.]

### A DAINTY USE OF RUBBER.

THE florist, says a writer in the "woman's page" of one of the newspapers, who had the pretty idea of adding a dainty pin to the bunch of violets every woman loves to wear upon occasions has supplemented it with another, which renders the delicate corsage immune. Fancy a little violet silk cover lined with rubber, tied round the stems, which, thus protected, retain sufficient moisture to keep the blossoms fresh through the entire evening.

## RUBBER NOTES FROM EUROPE.

THE Austrian consul at Warsaw reports that rubber belting is manufactured in Russia, but that the better sorts are imported, principally from Germany. The German firms do business partly through agents, but with even more success through maintaining stocks in Warsaw and Lodz. Shoe elastics are produced by five Russian factories, and nothing in this line can be imported.

### FIREPROOF GAS TUBING IN GERMANY.

THE Asbest- und Gummiwerke Alfred Calmon, Aktiengesellschaft (Hamburg), according to the Berlin journal, *Kuhlow's*, recently made a successful attack on the patent granted to Wilhelm Eisner, of Berlin, under November 29, 1898, for a fireproof gas tubing with close woven asbestos braiding. The Hamburg firm, who have sold rubber tubing with asbestos braiding since 1891, stated that it should not matter if gas or any other stuff was conducted through the tubes, and, therefore, no new patent should be granted for the specialty of "gas tubing." The imperial patent office held the same views, withdrew the patent, and forbade the manufacture of gas tubing with asbestos braiding as made by Müller & Korte, of Berlin-Pankow, according to this patent.

### AMERICAN RUBBER SHOE AGENTS IN LONDON.

THE first annual dinner of the European staff of the United States Rubber Co., at the Holborn restaurant, London, on January 4, at which the chief guest was Mr. John W. Knott, manager of the company's London depot, is reported at some length in the London *India-Rubber Journal*. The humorous menu card, on which the various dishes were named after the various brands of the United States Rubber Co.'s footwear, excited much merriment, and the dinner was followed by a number of speeches in which much good feeling was manifested.

### DUNLOP TIRE PROFITS.

AT the last annual meeting of the shareholders of the Dunlop Pneumatic Tyre Co., Limited, the directors reported a total profit for the business year ended September 30, 1901, of £237,569, which, added to the balance from the preceding year, amounted to £401,324. The dividends recommended amounted to 10 per cent. on the preferred shares (£48,390) and 5 per cent. on the ordinary shares (£26,484). After meeting the interest on debentures, and other fixed charges, there remained £178,580 to be carried over. Of the above income, £81,360 was derived from investments of the company's reserve fund.——The profits on trading by the Société Française des Pneumatiques Dunlop, Limited, for the same period, including interest on investments, were £16,772, allowing of 12 per cent. in dividends on the preferred shares and 15 per cent. on the ordinary.

## RECENT RUBBER PATENTS.

### THE UNITED STATES PATENT RECORD.

ISSUED DECEMBER 31, 1901.

NO. 689,852. Vehicle tire. John W. D. Carslaw, Chicago, Illinois, assignor to the Union Tire and Rubber Co.

689,972. Syringe. Alcinous B. Jamison, New York city.

689,977. Elastic tread rocker. Ellsworth J. Light, Pittsfield, Massachusetts.

689,987. Nursing nipple. David Pick, Salzburg, Austria-Hungary.

690,192. Tire or other valve. George H. F. Schrader, New York City.

690,231. Hoof pad. John Campbell, New York city.

690,250. Process of making waterproof and air-tight fabrics. Warren A. Durrin, Woodville, Wisconsin.

690,287. Cushion tire. Charles Hird, Woonsocket, Rhode Island, assignor of 49/100 to Patrick J. McCarthy, Providence, R. I.

690,353. Machine for cross wrapping rubber hose preparatory to vulcanization. Frank H. Brewster, Derby, Connecticut, assignor to Birmingham Iron Foundry.

*Design Patents.*

35,493-35,494. Rubber eraser. Byron B. Goldsmith, New York city.

35,497. Invalid cushion. Christian William Meinecke, Jersey City, New Jersey, assignor to Meinecke & Co., New York.

ISSUED JANUARY 7, 1902.

690,482. Hoof pad. August C. Tappe, Cincinnati, Ohio.

690,604. Rubber vehicle tire. Raymond B. Price, Chicago, Illinois.

690,605. Striking bag. Walter H. Price, Brockton, Massachusetts, assignor to Stall & Dean Manufacturing Co., Brockton.

690,663. Appliance for swimmers. Harry Pratt, Kenilworth, Illinois.

690,706. Pneumatic tire protector. Clarence G. Dinsmore, Staatsburg, New York.

690,719. Dress shield. Martha B. Gault, Cincinnati, Ohio.

690,819. Hose mender. William C. Anderson, Detroit, Mich., assignor to Buckley-Hart Manufacturing Co., Detroit.

690,868. Process of waterproofing fabrics. James Menzies, London, England.

690,908. Vehicle wheel tire. Johann Ludwig, Mayence, Germany, assignor of one half to Ferdinand Sichel, Mayence.

*Trade Marks.*

37,606. Dress shields. I. B. Kleinert Rubber Co., New York city. Essential feature—A keystone with a representation of a dress shield thereon.

37,627. Rubber hose, belting, packing, and gaskets. New York Belting and Packing Co., Limited. Essential feature—the word "Vulcan."

ISSUED JANUARY 14, 1902.

690,935. Pneumatic tire. Alfred Ducasble, Paris, France.

690,984. Horseshoe. John M. Myers, Louisville, Kentucky.

691,028. Rubber tire equipment for vehicle wheels. John G. Webb, Springfield, Ohio, assignor to the Victor Rubber Co., Springfield.

691,111. Hoof pad. John Campbell, New York city.

691,118. Inflatable articles. Charles W. Curlin, Hickman, Kentucky.

691,153. Life saving apparatus. Icilius W. Maccolini, Inwood, New York.

691,341. Life preserver. Charles Gore, San Francisco, California.

ISSUED JANUARY 21, 1902.

691,390. Horseshoe. Thomas F. Kenney, La Crosse, Wisconsin, assignor of one half to Herman C. Scharpf and Prank G. Roth, La Crosse.

691,440. Hose supporter. James B. Carolin, Newark, New Jersey.

691,467. Vehicle wheel and tire. Charles Howells, New York city.

691,574. Elastic tire. Joseph Baier and Emily Clark, London, England.

691,589. Tire. Mary E. Brooke, Denver, Colorado.

691,698. Vaginal syringe. Richard H. Eddy and Joseph B. Johnston, Providence, Rhode Island.

*Trade Marks.*

37,665. Syringes. Tyer Rubber Co., Andover, Mass. Essential feature—the word "Homestead."

ISSUED JANUARY 28, 1902.

692,010. Kid glove cleaner and process of making same. Herman Gottschalk, Chicago, Illinois.

692,056. Rubber tire. Alvaro S. Krotz, Springfield, Ohio, assignor to Consolidated Rubber Tire Co.

*Design Patents.*

35,621. Horseshoe pad. John Anson Buck and George Hassler, New York city.

*Trade Marks.*

37,673. Waterproof cloths, silks, and other textile fabrics. International Waterproofing Co., Chicago, Illinois. Essential feature the word "Circlette."

[NOTE.—Printed copies of specifications of United States patents may be ordered from THE INDIA RUBBER WORLD offices at 10 cents each, postpaid.]

## THE ENGLISH PATENT RECORD.

APPLICATIONS.—1901.

23,946. John William Hartley, Stone Staffs. Golf balls and golf ball molds. November 25.

23,877. Edward John Buckingham, 82, Mark Lane, London. Vehicle wheel tires. November 25.

23,881. George Wilson Langley. 111, Hatton garden, London. Sprays for shower baths. November 25.

23,932. Edward Head, 166, Fleet street, London. Method of securing rubber tires to wheels of vehicles. November 25.

23,933. Frederick Symons, 46, Lincoln's Inn Fields, London. Horseshoes and cushions therefor. November 25.

24,062. Frank Schmitz, 18, Buckingham street, Strand, London. Elastic hubs and axles. November 26.

24,068. Charles Louis Cuthbe and Robert Maxton, Albion buildings, Aldersgate street, London. Strip to repair and strengthen cycle tire covers. November 27.

24,129. Frank Pitter Bailey, 55, Chancery lane, London. Puncture preventing strips or bands for pneumatic tires and other purposes. November 27.

24,202. Hugh Taylor Stephens, 185, Fleet street, London. Means for repairing pneumatic and other tires. November 28.

24,207. Henry Harris Lake, 45, Southampton buildings, Chancery lane, London. Pneumatic tires. [Punctnot Tire Co., United States.] November 28.

24,241. William James Lawson, The Broadway, Walham Green, London. Hose reels. November 29.

24,305. Louis Albert Levin, 31, Cannon street, London. Elastic shoe heels. November 29.

24,309. Albert de Laski, 31, Cannon street, London. Vehicle tire. [Communication from the United States.] November 29.

24,461. John Hancock Nunn and Nevill Grange, Bream's buildings, Chancery lane, London. Rubber tires for carriages. December 2.

24,475. Henry Lee Carter, 18, Buckingham street, Strand, London. Elastic plaster. December 2.

24,522. Herbert John Dowsing, 115, Cannon street, London. Exercising and developing apparatus. December 2.

24,590. Adolph Gentzsch, Birkbeck Bank chambers, Southampton buildings, Chancery lane, London. Substitute for Gutta-percha. December 3.

24,601. John Franklyn Videtto, 11, Southampton buildings, Chancery lane, London. Elastic heel lift for boots and shoes. December 3.

24,622. Alfred Julius Boult, 111, Hatton garden, London. Leather outer covers for pneumatic tires. [Sebastiano Bocciardo, Italy.] December 3.

24,660. George Walter Dawes, Ernest Fenton Dawson, and Alfred Ernest Hubbard, Manchester. Pneumatic tires. December 4.

24,728. Harry Lucas, 18, Southampton buildings, Chancery lane, London. Valves for pneumatic tires. December 4.

24,763. Thomas Eyton Truss and George Henry Moore, Chester. The "Truss Moore" rubber preservative. December 5.

24,833. Charles Herman Paschke, 53, Chancery lane, London. Elastic tires for bicycles and vehicles. December 5.

24,842. Jean Jacques Seguier, 72, Cannon street, London. Syringe. December 5.

24,911. Henri Falconnet and Maurice Perodeaud, Liverpool. Air tubes for pneumatic tires. December 6.

24,912. *Same.* Improvements in tire covers. December 6.

24,924. Charles Hind, 11, Southampton buildings, Chancery lane, London. Tires for vehicle wheels. December 6.

24,935. Frederick Kuhlemann, of the Ungarische Gummuvaarenfabriks, Actiengesellschaft, Finsbury, London. India-rubber dolls and figures. December 6.

24,980. William Cordeaux, Green Lane, Selby. Prevention of puncture of pneumatic tires. December 7.

25,021. Percy William Henri Gray, 3, Philip lane, Wood street, London. Composition for golf balls. December 7.

25,068. William Henry Josiah White, Crofton Park, Brockley, London. Puncture proof band and pneumatic tire strengthener. December 9.

25,154. William Mathews Savours, 77, Colmore row, Birmingham. Pneumatic tires. December 10.

25,517. William Phillips Thompson, 322, High Holborn, London. Method of securing pneumatic tire covers. (Jean Paul Le Grand, France.) December 13.

25,640. John Adair, Waterford. Pneumatic tire. December 16.

25,642. Alexander Latimer, Birmingham. Method of attaching pneumatic tire covers. December 16.

25,737. Robert Coulter, Leeds. Rainproof or waterproof garments. December 17.

25,755. Bernard Mervyn Drake and John Marshall Gorham, 66, Victoria street, Westminster, London. Vehicle tires. December 17.

25,800. Charles Edward Adolphus Esse, Liverpool. Pneumatic inner tubes of tires. December 17.

25,819. Mary Dawson, 10, St. George's Crescent, Liverpool. Pneumatic tires. December 18.

25,823. George Walter Dawes, Manchester. Outer covers for pneumatic tires of cycles and vehicles. December 18.

25,829. James Major, Manchester. Apparatus for locating punctures in pneumatic tires. December 18.

25,850. Frank Mousley, Birmingham. Valves for footballs, tires and the like. December 18.

25,969. Louis Peter, 53, Chancery lane, London. Means of securing elastic tires to motor wheels. December 19.

26,042. Henry Norton Butler Good, 65, Chancery lane, London. Pneumatic tires. December 20.

26,190. William Corser, 8, Lombard chambers, Liverpool. Pneumatic tires. December 23.

26,279. Francis Alban Byrne and George Boardman. Method of attaching India-rubber soles and heels to boots and shoes. December 24.

26,331. Frank Mitchell, 23, Southampton buildings, Chancery lane, London. Pneumatic tires. December 24.

26,445. Alfred Ernest Walker and Charles Macintosh & Co., Limited. Tires for vehicles. December 27.

26,636. Leopold Sharpe, 8, Far Wharf, Lincoln. Celluloid puncture proof protector. December 30.

26,656. John Henry Wright and Samuel Simpkin, Wolverhampton. Pneumatic horse collar. December 31.

26,709. Jules Compin and Eugene Flachot, 53, Chancery lane, London. Elastic tires. December 31.

PATENTS GRANTED.—APPLICATIONS OF 1900.

13,886. Printing with rubber types or blocks. Bowley, J. W., 34, Banstead street, Leeds, Yorkshire. August 2, 1901.

14,210. Horseshoes. [Kennedy, W. M., and Duncan, R. C., Franklin, Pennsylvania, United States.] August 8, 1901.

14,544. Metal and rubber tire. Price, R. B., and Calumet Tire Rubber Co., Chicago, United States. August 14, 1901.

14,545. Rubber tires. *Same.* August 14, 1901.

14,563. Knee and elbow caps. Gorse, F. W., Needham, Massachusetts, United States. August 14, 1901.

14,577. Syringes. Valentine, W. S., No. 71 Broadway, New York, United States. August 14, 1901.

14,579. Rubber tire. Hilton, E. M., Hilton, J. S., and Hilton, W. W., Merriman, R. M., and Pfeiffer, J., Akron, Ohio, United States. August 14, 1901.

14,643. Pneumatic tire. Lecreq, P. A., Bolbec (Seine-Inferieure), France. August 15, 1901.

14,849. Pneumatic tire cover. Large, E., Birmingham. August 20, 1901.

15,083. Inflating valves. Way, L., 19, via Barole, Turin, Italy. August 23, 1901.

15,126. Inflated collars for drivers' helmets. Blake, J. H., 86 Grange road, Bermondsey, London. August 24, 1901.

15,142. Pneumatic tire. Watson, J., Birmingham. August 25, 1901.

15,221. Method of attaching tire to rim. Hopton, A., 124, Euston road, London. August 27, 1901.

15,471. Pneumatic tire. Gray, C. H., Silvertown. August 30, 1901.

15,685. Teething pads, rings, and the like. Stewart, R. P., Kirkintilloch, Dumbartonshire. September 4, 1901.

# RUBBER GOODS

Our three brands,—single, double and triple diamond,—correspond to three qualities. A single diamond means "Carbon" grade—a good article; a double diamond means "Double Diamond" grade—a fine article; a triple diamond means "1846 Para" grade—a splendid article and the best we can make. Our brands on hose, belting, packing and other rubber goods are guarantees of high quality and long service.

*Belting,*
*Garden Hose,*
*Water Hose,*
*Fire Hose,*
*Suction Hose,*
*Steam Hose,*
*Air Hose,*
*Tubing,*
*Rod Packing,*

*C. I. Packing,*
*Ruby Packing,*
*Gaskets,*
*Valves,*
*Rubber Tiling,*
*Rubber Matting,*
*Emery Wheels,*
*Specialties,*
*Vehicle Tires.*

**Chicago, .....150 Lake St.**
**St. Louis, .....411 No. Third St.**
**San Francisco, 509 Market St.**
**Boston, .. ... ...24 Summer St.**
**Philadelphia, 724 Chestnut St.**

## NEW YORK BELTING & PACKING CO. LTD

**PIONEERS AND LEADERS—25 PARK PLACE, NEW YORK.**

*Mention The India Rubber World when you write.*

ECCE SIGNUM.

# THOROUGHLY RELIABLE.

The policy of furnishing on'y the finest goods that can be produced with perfect materials, latest and best machinery. and highly skilled workmen of long experience, has been, is now, and will continue to be, the policy of

# The Mechanical Rubber Company,

**CHICAGO, ILL.**

**Branch Store, No. 1810 Blake Street, Denver, Colo., where we carry a full line of goods.**

Manufacturers of all kinds of rubber goods for mechanical uses—Hose, Belting, Packing, Gaskets, Bicycle Tires, Specialties, Moulded Goods, Etc., Etc.

**If you are unable to satisfy your trade with goods you are supplying,**
**If you are in search of good goods at fair prices,**
**If you cannot get quick deliveries,**
**If you are not getting fair value for your money,**
**IN ANY EVENT,**

**SEND TO US FOR SAMPLES AND QUOTATIONS. . . . .**
**WE CAN SUIT YOU EVERY WAY.**

FACTORY, GRAND AVE. & ROCKWELL STS

**THE MECHANICAL RUBBER CO., 230 Randolph St., Chicago, Ill.**

*Mention the India Rubber World when you write*

# THE RETAIL SHOE DEALERS AND RUBBERS.

ON February 6 was organized in Boston a Retail Shoe Dealers' National Association, at a well attended meeting, the credit for which belongs to the *Boot and Shoe Recorder*, whose proprietor, Mr. W. L. Terhune, called the meeting to order. The need of such an organization had been felt in the trade since the old National Retail Shoe Dealers' Association ceased to exist in 1891, and the recent call for a meeting was responded to by about 300 retailers and representatives of manufacturing and jobbing concerns. The business sessions of the convention were devoted to an enthusiastic exchange of opinions on topics pertinent to the trade, and followed by a banquet at the Hotel Brunswick. The officers chosen were:

*President*—Sherman Collins, Ithaca, New York.
*Vice President*—E. H. Keizer, Mansfield, Ohio.
*Secretary*—F. W. Gilbert, Somerville, Massachusetts.
*Treasurer*—Joseph Boucher, Woonsocket, Rhode Island.
*Executive Committee*—H. E. Hagan, Boston; James O'Sullivan, Lowell, Mass.; C. N. Buchell, New Bedford, Mass.; M. F. Cosgrove, Worcester, Mass.; J. H. Murphy, Boston.

Many references to the rubber shoe trade were made during the proceedings, including one address by a retail shoe dealer of Boston, the salient portions of which follow:

## SOME VIEWS ON THE RUBBER SITUATION.

BY H. E. HAGAN.

EVER since I entered the retail shoe business the rubber question has been the bugaboo of the retail shoe man. In the early days of midsummer the wily salesman comes to hand and he tells you of that advance in price that is bound to come, and he generally books an order. And then the innocent shoe man, if he is a retailer with visions of the profits in store for him, complacently folds his arms and waits for the snowstorm that never comes, particularly if he does business in Boston. Before he knows it December 1 is round, and then he writes or sees his rubber man, and it is the same old story, no snow no money. So it goes on year after year—we do not seem to profit by the experience of the past.

Perhaps the presumption is that you men are all plentifully supplied with capital, but there is a great host of shoe men all over this country and your proceedings will be reported in the *Recorder*, and these men will see what you have done, and it is to them that I am talking now.

Let's not do it any more; let's buy rubbers as intelligently as we buy leather goods. Provide in the early summer time for the early snowstorm. That is the harvest week for shoe men. Buy enough for that and then stop, and then buy from hand to mouth. Don't load up again. Better let the price of goods go up and you pay it rather than buy too heavy. We buy too heavily of both leather and rubber goods. The hardest factor in my mind that the retail shoe man has to contend with is to say no, for the salesmen are all good fellows.

It is a chronic statement with the retail shoe man that he does not make any money on rubber goods, and he certainly does not make as much as he ought to. This year it was a little different; not because the United States Rubber Co. loved him, but because they hated the other fellow more. It is not the fault of the United States Rubber Co.; you have got yourselves to blame. You don't put profit enough on your goods. You know and I know that men in the small towns or suburbs of small cities sell rubber goods at less price than the high grade men in the center of the city. It may be, and is to quite an extent, true that a man or a woman may go to the large city to buy their footwear, but when they wake up some morning and find a big snow storm, then they think of your store, and you should get your profit then. If you will slash, do it when the ground is clear and when people don't want your goods at any price.

What I am going to say will tread on the toes of my friends in the rubber business. It is an unfortunate circumstance that they have planted the rubber men at this table, and I believe each one has a gun. To my mind the men who control the destiny of the United States Rubber Co. do not intelligently grasp the situation from the retailers' standpoint. In discussing this question from the retailers' standpoint, I want to take up the question of production. You and I have attended auction sales in this city in the past. What do we find at rubber sales? As a whole, it is rubbers out of style. The presumption is they could not be sold at a profit and therefore they were sold at a loss. Somebody took that loss, and it reduced somebody's profit just so much. Take last season in this city. I am told by a representative of one of the largest rubber houses that during the month of December they might have sold $70,000 worth of goods if they had had the size that would fit your customers' shoes and mine. They had rubbers galore, but they did not have what we wanted. There was a period of two or three weeks when I could not get rubbers in this city for any price that would fit the shoes they were supposed to fit. Why did not the men who control the production look ahead and see what the prevailing styles were to be, and then make a large quantity of rubbers in those styles? It is a loss that can be avoided.

There is a question of distribution. I am not going to overpaint or overdraw this picture. I am going to state conditions as they exist in this city, and I believe the same conditions exist in all large centers of distribution. We have in this city four exclusive rubber houses, each carrying a special brand and all controlled by the United States Rubber Co. The money from all eventually finds its way into the box. But these four houses pay rent for four stores. They are under the management of high salaried men. Each has a separate corps of salesmen and clerks. There is a tremendous expense of cartage to and from the various depots. To my mind the proper distribution of rubbers can be made through leather jobbers. They send their representatives wherever a man opens a shoe store. They can sell rubber goods at no more expense when they are selling the leather goods. If the United States company must distribute their own rubbers why can they not do it with one set of men and one store under one management? Then the items of expense would find their way to the proper side of the ledger and the rubber people would stop saying that they do not make money. But what good is that going to do the retailer? I don't know as it would do him any good. But if we could as an organization by any method get them to give the retailer a small percentage of the saving we could save some money and they would not lose anything by the transaction.

Ask the rubber man why this condition exists and he will tell you that all retailers want the various brands. There may be some locations in which it was so when these various companies were all rivals in striving for business, but that condition does not exist to-day. I have seen two retailers each marvel how the other man could sell a special brand of rub-

bers. The feeling is the prejudice of the retailer; he thinks he cannot sell but one brand of rubbers although his competitor sells another and does equally as well. I believe the day has gone by for branded goods in this era of combination, when we know the combination as it is. If they must brand, brand them first quality and second quality. I have done business in this city in three different sections, with the poorest class, with the middle class, and where the best classes congregate. I therefore feel, as far as Boston is concerned, I know something of the ideas of the people here. When you buy rubber goods you buy that grade that the location calls for. I want to say now in all sincerity that in my experience that there is not one man in ten or one woman in fifty who enters my store who knows or cares what brand is on the goods. They want a pair of rubbers to fit their shoes and if they don't want first quality that will pay you a profit, then have the second quality which you can sell at their price and still make a profit. A good many retailers insist that they will carry nothing but first class rubbers. Why not follow it along and carry nothing but $5 shoes? They carry different grades of shoes, why not carry different grades of rubber footwear?

If it is in our power as an organization to get the men who control the destinies of the United States Rubber Co. to give this business proposition proper business attention, I think it is possible we can get the dating of bills January 1. Then if we do not get our snowstorm we will get the Christmas trade, and the United States Rubber Co. would not suffer much, for they do not get their money anyhow until that time. My idea is that if they will intelligently grasp the situation we can get a small percentage more profit on our goods. If we can do this, this meeting in Boston will not be in vain.

A REQUEST TO THE RUBBER COMPANIES.

AMONG the questions discussed was the desirability of having rubber footwear sized to correspond with leather goods. As one member said: "Children's shoes, kid goods run from 8½ to 11; rubbers run from 4 to 10½; we have a four to 8 infants' shoe; we have no 4 to 8 infants' rubbers. Our children's rubbers only run to 10½, where leather goods run to 11. They should be uniform." A motion was adopted, instructing the executive committee of the association to consult with the rubber shoe manufacturers on this point. The same motion expressed a desire that some arrangements should be made for holding the prices of rubber footwear at the same figures from the beginning to the end of the season. A separate motion, made by the Mr. Hagan named above, was carried as follows:

I move that we, as an organization through our secretary and our executive committee, endeavor to bring influence enough to bear upon the United States Rubber Co. to have our rubber bills dated January 1 instead of December 1.

## THE PRACTICAL JOKER AT WORK.

THE Worcester (Mass.) *Telegram* gives space to a report that "the Woonsocket Rubber Co. and the Boston Rubber Shoe Co. contemplate forming a company independent of the trust."

The Baltimore *American* lately reported the presence in that city of "a number of New York capitalists, representing some of the very richest men in the metropolis," "relative to starting a rubber factory in Baltimore, where it is proposed to manufacture every variety of rubber goods."

In Poland and Lithuania, says an exchange, there is a very large export from Russia of old goloshes, which are subsequently melted down and made into new goloshes and other India-rubber goods.

## ANSWERS TO CORRESPONDENTS.

INQUIRIES reach THE INDIA RUBBER WORLD almost daily for reading matter relating to the practicability of planting rubber, the most desirable locations, the best methods of procedure, and so on. We can refer to no other publication that has contained so much information on the subject, applicable outside of the Far East, as THE INDIA RUBBER WORLD. Specific inquiries will be answered, as far as possible, but the general subject is too broad to be covered, either in letters or in single article in a trade journal.

TO THE EDITOR OF THE INDIA RUBBER WORLD: Referring to the report on "The Balata Movement," in your issue of January 1 [page 126], may I ask if that was *sheet* or *block* Balata? H.

THE report referred to Venezuela. While it failed to distinguish between sheet and block, we understand that very little sheet Balata is shipped from that country, it being cheaper to boil the sap in mass than to dry it in the sun, in thin sheets.

TO THE EDITOR OF THE INDIA RUBBER WORLD: I read in your December 1 issue [page 73] that the United States consul at Leipsic reports that a recently patented insulating material is made by taking pulverized casein and mixing it with vegetable oils. Can you inform me where I can get a copy of this report? M. B.

THE consular report gives no further details than were mentioned in our paper. An unverified report reaches us that the patents have come into the possession of the Vereinigte Gummiwaaren-Fabriken, Harburg a/d Elbe, Germany.

TO THE EDITOR OF THE INDIA RUBBER WORLD: I am desirous of learning the date and number of the United States patent covering what is known as Kiel's compound, and to whom issued, and whether the same has expired. C. O.

JULY 24, 1890, to William Kiel, Butler, New Jersey. No. 430,958, for "vulcanized plastic compound"; No. 430,959, for "process of manufacturing vulcanized plastic compounds." The same expire in 1907.

TO THE EDITOR OF THE INDIA RUBBER WORLD: Is there any market in this country for worn rubber pump valves? We are constantly discarding a number of these, and have thought that we might possibly dispose of them. B. A.

IN the scrap rubber trade rubber pump valves are included in the general classification of "black heavy rubber," for which the price of late has been 4 to 5 cents a pound. Sometimes small lots of valve scrap are offered separately, but as a rule the quantities handled are too small to form a separate class of goods. While fluctuations in rubber shoe scrap prices are frequent, the market for black heavy rubber is little affected by them.

TO THE EDITOR OF THE INDIA RUBBER WORLD: I enclose a newspaper clipping: "An India rubber gatherer in Brazil averages 16 pounds of juice daily." Kindly tell me if this estimate is correct, and what is the percentage to a pound of juice. H. W. B.

THE amount of rubber collected daily, on well paying *estradas*, ranges from 5 to 20 pounds per man. The percentage of dry rubber is 50 to 60 of the total weight of *latex*. The average collection of rubber, therefore, is probably a good deal less than 16 pounds of sap daily per man. But since our correspondent probably is concerned about planting the *Castilloa elastica*—a different species—in Mexico, it may be mentioned that this tree yields its product, of 2 pounds or more of dry rubber, at one or two tappings a year, whereas the Brazilian rubber tree has to be bled every day or two throughout the season to produce the same amount. Ten or more Mexican trees can be tapped in a day.

## DEATHS IN THE RUBBER TRADE.

### JOHN C. EVANS.

ON February 5 John C. Evans, president of the Milltown India Rubber Co., died at his home in Milltown, N. J., of congestion of the brain, after a very brief illness, in his forty-seventh year. He died in his native town, in which he had become a central figure and its most prominent citizen, besides being widely known and liked in the rubber trade, with which he had been connected all his life.

The father of the deceased, John Evans, was born in 1827, and is on record as having been in the employment of Ford & Co., India-rubber manufacturers, at Milltown, as early as 1846. He probably was connected with that factory from its establishment, in 1845. In time the Meyer Rubber Co. was established at Milltown by Christopher Meyer, who became the most prominent figure in the rubber industry, and later the business of Ford & Co. was merged with it. John Evans, whose sister Mr. Meyer had married, became the superintendent of the Meyer factory in 1855, succeeding L. L. Hyatt—who still lives, in London—and remained in that position until his death, in the early eighties. John C. Evans began his education in the Milltown public schools and attended the Rutgers preparatory school at New Brunswick and the Pennington and Hackettstown academies. On October 19, 1874, he entered the Meyer factory, where he remained until after the death of his father, when he succeeded to the position of superintendent, retaining the same until May 1, 1899. Mr. Evans has stated to THE INDIA RUBBER WORLD that during the ten years preceding the death of Christopher Meyer, the president of the company, in 1888, their profits averaged at least $150,000 a year, on a capital of $200,000. The Meyer factory was acquired by the United States Rubber Co., and finally closed, its product being combined with that of the New Jersey Rubber Shoe Co., at New Brunswick.

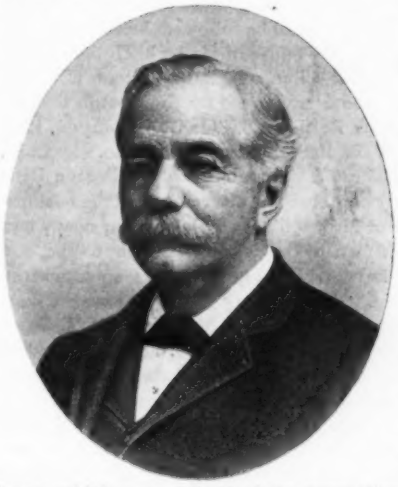
The village of Milltown being thus deprived of its leading industry, and the population being composed largely of trained rubber workers who owned their homes, and were not disposed either to engage in another industry or leave Milltown, Mr. Evans led a movement to establish a new rubber shoe factory there. Through his efforts the Milltown India Rubber Co., with $200,000 capital, was organized, and a well equipped factory erected, which was formally opened August 27, 1900, with Mr. Evans as president and general manager. The leading business men of the village became stockholders, as also did some of the employés, the idea being in a measure to make the company a coöperative affair.

Mr. Evans was a director of the National Bank of New Jersey, vice president of the New Brunswick Savings Institution, director of the Milltown Building and Loan Association, president of the Milltown board of education, and a trustee of the Methodist Episcopal church at Milltown. He was elected mayor of Milltown when that borough was first organized and served until early in 1901, when he declined a renomination. He was a member of the Union Club, of New Brunswick.

On October 22, 1885, Mr. Evans was married to Miss Mary Austin, of New Haven, Connecticut, who survives, with five children—John, Marie, Herbert, Austin, and Gladys. The celebration of the fifteenth anniversary of their wedding, in 1900, was largely attended by their friends, from near and far. Mr. Evans leaves a brother, Alfred Evans, of Indianapolis, Indiana, and four sisters, who live in Milltown and New Brunswick.

### WILLIAM H. SALISBURY.

THE veteran rubber man, William H. Salisbury, died in Chicago, on February 19, at the ripe age of 85 years. He was born in Springfield, Vermont, August 17, 1817, and was the oldest son of General Moses B. Salisbury. His parents were natives of Rhode Island, and when the son had reached the age of two years, they returned to their native state, where his youth and early manhood was passed. At a very early age he manifested a marked taste for mechanical pursuits. When twelve years old he built a top buggy which was really the forerunner of an exceedingly popular type of vehicle, for in those days the only covered carriages were the old fashioned one horse chaise—all four wheelers being open vehicles. This was only one of many ingenious mechanical triumphs that he scored. At the age of fourteen, while attending the village school, he drew plans for a church which was about to be built, and which, being discovered by the schoolmaster, were shown to the building committee and adopted as better than the architectural plans which they were considering. When he was sixteen years old his father sent him to Connecticut at the head of a force of mechanics to put a woolen mill in running order. Here he conceived the idea of substituting the main driving belts for upright shafting and bevel gears. At this he was successful, and it is a matter of history that this was the first mill operated in this way in the United States, and probably in the world. During the next four years he was busy in building and equipping woolen mills, in which business he was in practical partnership with his father. During that time he invented many machines and devised many plans for woolen machinery.



In 1837, or when Mr. Salisbury was twenty years of age, the woolen business being depressed, he gave that up and associated himself with William G. Angel, of Providence, and put up a plant for the manufacture of wood screws, in which business he became very successful. In 1849 he went into the business of contracting and building in Providence. While there he became acquainted with a wealthy resident of Augusta, Georgia, who persuaded him to go to the latter city under a three years' contract, where he erected many fine build-

ings. He then went into a mercantile business in the South, which lasted until the eve of the civil war. Believing that this would be disastrous to his busiuess, he sold his southern holdings to his partners, taking a small amount in gold and the rest in notes, and returned to the North. Before the maturity of these notes the Confederate government confiscated them, so that they became to him an entire loss. He then built the Wanskuck woolen mills, in Rhode Island, and having thoroughly equipped them, accepted the agency of the Great Washington Mills Corporation at Lawrence, Massachusetts, the date of acceptance being July 1, 1865. The mills had not been operated successfully, but from the first he ran them so that they paid dividends. It was here that he introduced the mauufacture of worsted goods being the pioneer in that respect in the United States.

Mr. Salisbury remained as agent for the Washington mills for nine years, when, on not agreeing with some of the directors as to the policy which should be followed, he resigned and went to Chicago, entering the house of Hallock, Holmes & Co. which became Salisbury & Cline, and later William H. Salisbury & Co. The old house was agent for the Boston Rubber Shoe Co. and the Boston Belting Co. On its dissolution, Hallock and Holmes kept the Boston Rubber Shoe Co.'s account, while William H. Salisbury & Co. took that of the Boston Belting Co. Mr. Salisbury continued as active head of the business almost up to the day of his last illness. He was physically and mentally a remarkable man of the best New England type, and was known perhaps as widely as any business man connected with the rubber trade. Mr. Salisbury left a widow and four sons and three daughters. His son, Mr. Warren H. Salisbury, succeeds as active head of the concern. Funeral services were held in Chicago on February 20, and in Providence on February 22.

The interment was at Swan Point cemetery, about 3½ miles from Providence. There were present from the Salisbury family, Mrs. W. H. Salisbury, Mr. William Dexter Salisbury, Moses Brown Salisbury, Warren M. Salisbury, and George J. Quincey. Representing the Boston Belting Co. there were: James Bennett Forsyth, general manager; Thomas F. Forsyth, superintendent; John H. D. Smith, treasurer; George P. Whitmore, secretary. Malcolm McColm represented the Eureka Fire Hose Co., and William B. Laighton the Apsley Rubber Co. The Hon. L. D. Apsley, who was absent in New York, planned to be present, but missed connections through a railroad accident. The floral display was very large and beautiful, and the family are in receipt of expressions of sympathy and condolence from well known people in the trade all over the country.

## THE LATE MR. FUJIKURA, OF JAPAN.

THE death of this important representative of the rubber industry in Japan has been recorded already in THE INDIA RUBBER WORLD, as having occurred on October 8 last. Mr. Zenpachi Fujikura was born October 18, 1843, in the village of Tochigi-ken, which is about 40 miles from the city of Tokio and 36 miles from Nikko, the finest temple in Japan. He was the son of a farmer, but as he disliked that calling he started, at the age of twenty, a small flour mill, using a water power which was close to his home. That locality being notable for wheat growing, he had plenty of work, and not only did the milling himself but sold the product, going to Tokio twice a month. At the age of thirty-two he decided to remove permanently to Tokio, and closed the mill, becoming a manufacturer of ribbons and fancy goods. Later, when electricity was introduced into Japan, he began to experiment in the manufacture of insulated wire. For this purpose he started a small factory in 1884, and that without knowing anything about the rubber business. It may be easily understood that he experienced many setbacks, but these were all overcome and he became the pioneer manufacturer of insulated wire in Japan.

It is interesting to note that the first idea he had of how rubber was compounded, he gleaned from an encyclopedia, and that it was only through constant experimenting and failure after failure that he succeeded. His first vulcanizer, used in 1893, was a kettle employed formerly in boiling rice. Later, when he had succeeded in compounding and vulcanizing rubber, he made his own washers, grinders, and rubber covering machine and in 1894 was able to fill a large contract for the Japanese government for insulated wires. After that his progress was rapid. In 1896 he was manufacturing all kinds of insulated wire needed for Japsnese concerns, and he then bought a large tract of land and built a factory known as the Fujikura Insulated Wire Works. To-day his wires are used in every part of Japan and have also been quite largely exported.

In accordance with Mr. Fujikura's desire the funeral services were exceedingly simple, but in spite of this fact thousands of people assembled, and the testimonial letters from firms like the Oriental Rubber Co., the Tokio Electric Light Co., and large manufacturing concerns which were read at the ceremony testified to their appreciation of the man and his work. By the terms of his will quite an amount of his property was given to the poor, and he also generously remembered the public school in the village of his birth. His company, the Fujikura Insulated Wire Works, is now succeeded by the Fujikura Insulated Wire and Rubber Co., the business to be carried on by Mr. Tomekicki Matsumoto, his youngest brother. Mr. Fujikura held many offices of trust, among which he was a director in the Oriental Rubber Co. and in several prominent Japanese electrical firms.

## SOME WANTS OF THE RUBBER TRADE.

[226] FROM a manufacturer of rubber packings: "We have to dispose of a quantity of C. B. S. sheet rubber scrap, in pieces of various sizes, which will cut circles ranging from ½ inch to 5 inches in diameter. Could you give us the names of any parties cutting small packings and specialties from such material?"

[227] From a coal and iron company, Birmingham, Alabama: "Is there a market in this country for worn pump valves? We are constantly discarding a number of these, and should like to dispose of the same, if possible."

[228] From a rubber factory: "We should like to know the names of some manufacturers of annealed glass tubes, such as used in the manufacture of certain kinds of rubber tubing and catheters."

[230] From Paris: "Will you be good enough to let us know who are the manufacturers of the 'Monarch' billiard cushions, and if there is an agency for them in Europe?"

[231] From a rubber factory: "We are in the market for some churns for mixing rubber cement, and would be much obliged if you would advise us where they can be purchased."

[232] Two English letters contain inquiries for the color "Yale Blue," which they mention having seen referred to in Mr. Pearson's book, "Crude Rubber and Compounding Ingredients," and ask whether the same can be purchased in Europe.

[233] "Kindly advise us where we may be able to purchase Holland, such as is used in the calendering of rubber, to give the same a smooth surface."

# NEWS OF THE AMERICAN RUBBER TRADE.

### PENNSYLVANIA WORKS TO MOVE.

THE Pennsylvania Rubber Co. (Erie, Pa.) have decided to build a new plant, at Jeannette, Pa., a point 26 miles from Pittsburgh, and widely known as a center of the glass industry. The demand for the company's goods has led to the working of their present plant night and day, and an urgent necessity exists for much larger facilities, which it has not been possible, conveniently, to install at Erie. Under these circumstances, a complete duplication of the present machinery was ordered five months ago, including the latest improvements, most of which has been completed and is now being delivered at Jeannette. There was some delay in getting a railroad switch located suitably at the latter point, but at last this obstacle has been removed, and a complete new factory is being pushed to completion as rapidly as possible. The boiler and engine plant are to be of four times the present capacity, and each department is being laid out with a view to its extension whenever desired, without regard to the rest of the factory. The new buildings are mostly of one story construction, having the modern saw tooth roof, with its northern light, and so laid out that the superintendent can survey nearly the whole interior from any part of the factory. The main building is 308 × 50 feet, three stories, with a basement 80 feet in length. The one story structure is 308 × 200 feet, with a basement 200 × 200 feet, for storage purposes. The plant at Erie will be run until the new factory is in operation, at which time it will be closed, and such machinery as may be needed at Jeannette will be removed there. The ground occupied at Jeannette consists of 21 acres, with a frontage on the main line of the Pennsylvania railroad of more than 1200 feet. An abundance of water can be obtained from Brush creek, which borders the property. The Pennsylvania Rubber Co. was incorporated May 26, 1899, and acquired the plant of the old Erie Rubber Co. The officers are: Herbert Du Puy, interested in the Pittsburgh steel trade, president; Frank A. Wilcox, formerly of the India Rubber Co. (Akron, Ohio), treasurer and general manager; Theron R. Palmer, formerly with The B. F. Goodrich Co., treasurer; and H. A. Palmer, formerly with the India Rubber Co., secretary.

### UNITED STATES RUBBER CO.'S BOSTON OFFICES.

ON Monday, February 10, the Boston offices of the United States Rubber Co. were removed from Bedford street to the elegant new quarters prepared for them in the Converse building No. 101 Milk street. The new offices are in an addition recently made to the Converse building, and are on the same floor as the offices of the Boston Rubber Shoe Co., besides including the basement of the annex. The offices are very handsomely fitted in oak, and not only afford ample desk room for all, but have arrangements for the most complete sample rooms that can be imagined. The samples arranged for are a full line of all of the Woonsocket, Wales-Goodyear, Candee, Meyer, and National types of footwear, together with the American Rubber Co.'s footwear and clothing.——A circular dated February 3 announces: "Mr. C. J. Pike, for many years connected with this company, having tendered his resignation, which has been accepted, Mr. C. B. Allen, selling agent of Woonsocket and Rhode Island brands, for some time associated with us at our Chicago office, has been placed in charge of our Boston agency. Mr. H. H. Perrin, who for some time assisted Mr. Pike, has been appointed selling agent of Wales-Goodyear and Connecticut brands."——Mr. Pike was one of the best known and most brilliant salesmen of rubber footwear in the country, for many years selling agent of the Wales-Goodyear Rubber Co., and later, one of the selling agents of the United States Rubber Co.

### UNITED AND GLOBE RUBBER MANUFACTURING COS.

A PERMIT has been granted by the Trenton authorities for the erection of an additional building by the above corporation, to be of brick, two stories, 49×81 feet. For some time past the factory has lacked sufficient facilities for keeping up with the orders received.

### METHUEN (MASS.) RUBBER CO.

THIS company, engaged for some time in manufacturing patent rubber insulators, was incorporated recently under Maine laws [see THE INDIA RUBBER WORLD, February 1—page 155], and is planning an increase of plant and extension of business. Richard P. Osgood is president, John D. Osgood, secretary, and E. J. Castle, treasurer. Besides, Benjamin G. Ward, of Portland, is clerk in the state of Maine, as required by the corporation laws there. The company has exported insulators to Europe, South America, and Australia.

### MECHANICAL RUBBER CO.

DURING the month a call was issued for bonds of this company to the amount of $11,958.75, for retirement, under the terms of the mortgage of January 1, 1893, which authorizes the trustees, at their discretion, to apply any moneys in the sinking fund to the purchase of the company's bonds.

### UNITED STATES COTTON DUCK CORPORATION.

THE annual meeting of stockholders was held in Jersey City on January 21. At a meeting of the newly elected directors in New York, on January 31, the following officers were elected for one year:

*Chairman Board of Directors*—S. DAVIS WARFIELD, reëlected.
*President*—TRENOR L. PARK, president of the American Trading Co., who was chosen in October last to succeed Richard Cromwell, reëlected.
*Vice Presidents*—J. SPENCER TURNER and WILLIAM E. WELLINGTON, reëlected; DAVID H. CARROLL, of Baltimore, to succeed James E. Hooper; and J. SOUTHGATE LEMMON, of Baltimore, making four instead of three vice presidents, as formerly.
*Secretary*—DAVID H. CARROLL, reëlected.
*Treasurer*—CHARLES K. OLIVER, reëlected.
*Assistant Secretary*—JOHN R. DORSEY, of Baltimore; a new office.
*General Manager*—JAMES E. HOOPER, president of the Mount-Vernon-Woodberry Cotton Duck Co., Baltimore; a new office.
*Executive Committee*—S. Davies Warfield, E. A. Brinckerhoff, William H. Wellington, Thomas M. Turner, Sigmund Lehman—reëlected; David H. Carroll, Thomas J. Hayward, Trenor L. Park, and C. K. Oliver.

The charter, dated June 4, 1901, authorizes a capital stock of $50,000,000, of which $26,100,000 was issued in respect to the cotton duck factories combined last year [see THE INDIA RUBBER WORLD, July 1, 1901—page 291]. At the meeting on January 31 it was resolved to retire stock held in the treasury, to the amount of $10,000,000 each in preferred and common shares, thus reducing the capital of the company to $30,000,000. This action was approved at a special meeting of stockholders at Jersey City, on February 14. At a meeting of the directors on the same day it was stated that the earnings from June 30 to December 31, 1901, had amounted to $318,203, of which $104,644 was contributed by the Stark, La Grange, and Hogansville mills, and $211,758 by the Mount Vernon-Woodberry Cotton Duck Co. group of mills. The earnings of the latter group

during November and December alone were $155,592. The directors considered as premature any action on dividends, however, until the company has been in operation twelve months. "The last year," they reported, "as is known, was perhaps the most unsatisfactory year cotton manufacturing concerns have experienced since 1884, and while more satisfactory conditions have now been reached, it has been deemed wise to proceed conservatively.——The prominence in the general export trade of Mr. Park, who has become president of the Cotton Duck Corporation, may be regarded as evidence of a more vigorous foreign trade policy on the part of the company. Already the export of American cotton duck has attained large proportions.——The J. Spencer Turner Co. (New York), selling agents for the corporation, maintain a London branch, and are advertising its products extensively in Europe.

The annual meeting of the Mount Vernon-Woodberry Cotton Duck Co. was held at Jersey City February 14, and directors chosen, after which the directors elected the following officers:

*Chairman Board of Directors*—S. Davies Warfield.
*President and General Manager*—James E. Hooker.
*Vice Presidents*—J. Spencer Turner, and J. Southgate Lemmon.
*Treasurer*—Charles K. Oliver.
*Secretary*—D. H. Carroll.
*Executive Committee*—Messrs. Warfield, Hooper, Lemmon, Oliver, Carroll, and James M. Barnard, and W. E. P. Duvall.

### HARDMAN RUBBER CO.

THE annual reception of the employés of this company, at the factory, at Belleville, New Jersey, on the evening of February 10, was, as usual, highly enjoyed by those who took part. The spacious stockroom was tastefully decorated for the occasion, and the Messrs Hardman, Superintendent Schwerin, and the various foremen were present. Dancing and a collation were included in the program. The committee of arrangements comprised Thomas Murray, John Maguire, and Misses Katie McCoy, Lizzie Murphy, Annie Hood, Maggie Galvin and Katie Comesky.

### CHANGES IN RUBBER BOOT PRICES.

THE United States Rubber Co., under date of February 18, announced changes in the gross prices of certain styles of men's boots, to take effect from January 1 last as follows:

| | | | | |
|---|---|---|---|---|
| All-Duck Short Boots | from | $5.10 | to | $4.90 |
| Duck-Vamp Hip Boots | from | 6.75 | to | 6.65 |
| Duck-Vamp Sporting Boots | from | 6.75 | to | 6.65 |
| Duck-Vamp Short Boots | from | 4.75 | to | 4.60 |

### AN ATTRACTIVE SOUVENIR.

FOR a number of years past The B. F. Goodrich Co. have given a souvenir picture that has been so appreciated that it has found place not only in the offices of those interested in rubber goods but at many times in their homes. The picture as a rule has been the likeness of a beautiful woman, with no suggestion of an advertisement about it, but every one remembers, however, that it is the gift of the Goodrich company. This year "Ruth" is sent out to the trade and is received with the same favor as her beautiful sisters have been. It is possible that THE INDIA RUBBER WORLD ought not to make this note, for the reason that the call for the picture has been so great that the generous supply has been practically exhausted.

### BRASS GOODS FOR RUBBER HOSE.

THE H. B. Sherman Manufacturing Co. (Battle Creek, Michigan) have added to their already extensive plant machinery and patterns for the production of a complete line of brass goods for use in connection with hose. Their line now includes Sherman hose clamps, Sherman stamped brass hose couplings, regular pattern cast brass hose couplings, steam hose couplings, automatic couplings, lawn hose sprinklers, and other articles pertaining to the hose trade. All the above articles are made from patterns in the designing of which great care and foresight has been used, with a view to the production of a class of goods superior to any others on the market. A large and varied stock of these goods will be carried, and the firm invite requests for their catalogues and prices.

### WAREHOUSE RUBBER RECEIPTS.

AT the weekly auction sale of stocks and bonds held February 5 by Adrian H. Muller & Son (New York), there appeared in the list a number of warehouse receipts for crude rubber. In all the receipts called for about 230,000 pounds of various kinds. They were designated in the advertisement:

Warehouse receipts for—

| | | |
|---|---|---|
| 24,270 | pounds | fine old upriver Pará crude rubber. |
| 3,960 | " | medium old upriver Pará crude rubber. |
| 40,520 | " | African crude rubber (bales). |
| 2,690 | " | African crude rubber (bales). |
| 18,400 | " | Lopori ball African crude rubber. |
| 117,360 | " | fine old upriver Pará crude rubber. |
| 24,480 | " | medium old upriver Pará crude rubber. |

As a result of the failure of the Crude Rubber Co., some interest was aroused in Wall street over the matter, as it was stated that some loans which had been made on the stock had been called and the rubber was consequently thrown on the market. But before the sale opened a notice of withdrawal was received by the auctioneers and the warehouse receipts were not offered.

### STOUGHTON RUBBER CO.

AT last accounts, the carpenter work on the new factory buildings having been completed, the installation of machinery was in progress, the hope being entertained that the new plant would be in operation by March 1.

### THE TRADING IN RUBBER STOCKS.

IMMEDIATELY after the first snowstorm in February there was increased activity in the trading in United States Rubber on the New York Stock Exchange, which was attributed in some quarters to the expected favorable effect of the weather upon earnings. But a Boston report is to the effect that the advance in prices "was believed to be due to manipulation on the part of a large New York operator, who is one of the largest stockholders of the company, his stock having been purchased at very much higher prices." While the recent weather, the advance in the price of rubbers, and the decline in the cost of crude rubber are all favorable to increased future earnings of the United States Rubber Co., their effect will not be apparent in the annual report for the current business year, which ends on March 31.——The record of Stock Exchange transactions follow:

| DATES. | COMMON. | | | PREFERRED. | | |
|---|---|---|---|---|---|---|
| | Sales. | High. | Low. | Sales. | High. | Low. |
| Week ending Jan. 26 | 240 | 14⅛ | 14 | 100 | 50⅞ | 50⅞ |
| Week ending Feb. 1 | 3,305 | 15¼ | 14 | 640 | 51¾ | 50⅞ |
| Week ending Feb. 8 | 2,840 | 15 | 14 | 135 | 51 | 51 |
| Week ending Feb. 15 | 150 | 14 | 14 | 545 | 51¾ | 51½ |
| Week ending Feb. 22 | 10,160 | 16⅞ | 14½ | 3,853 | 44¾ | 43¼ |

### NATIONAL INDIA RUBBER CO.

THE second annual dinner to the company's foremen, clerks, and salesmen was given at DeWolf's Inn, in Bristol, on the evening of February 15. There were about 70 guests, with Colonel Samuel P. Colt, president of the company, and of the United States Rubber Co., at the head of the principal table. H. H. Shepard, general manager of the company, acted as toastmaster, and speeches were made by the two gentlemen named, and also by William Hodgkinson, assistant manager of the company; W. T. C. Wardwell, one of the directors; W.

De F. Brown, secretary; L. B. C. Colt, assistant superintendent; E. R. Burley, manager of the Chicago branch; and several others, including C. A. Emerson, of the United States Rubber Co. The menu was pleasing, the banquet room was beautifully decorated, and good music was provided.

WOONSOCKET RUBBER CO.

FREDERICK T. COMEE has resigned the superintendency of the boot factory at Millville, to take effect April 1. John Robson, superintendent of the "Alice" mill, at Woonsocket, is to be general superintendent of the two factories. The "Alice" mill is due to resume work on March 3. The Millville plant has also been idle for some time, new machinery being installed.

SNOW AND THE RUBBER SHOE TRADE.

THE February snowstorms had a most favorable effect upon the demand for rubber boots and shoes, though occurring at a period usually regarded as too late to counteract a shortage of snow in the early winter months. The territory covered by the snow was in the thickly settled upper Atlantic coast region —the best field in the country for the rubber shoe trade when the weather conditions are right. The official record of snowfall on February 17–18 was as follows, in inches:

| | | | | | |
|---|---|---|---|---|---|
| Portland, Me.... | 7.8 | New York.... | 9.3 | Scranton..... | 4.6 |
| Boston..... | 11. | Albany..... | 9.4 | Philadelphia..... | 10.8 |

But the official record does not always adequately express the amount of snowfall, from a practical standpoint. The depth of the fall in New York was estimated in the trade at 12 inches, and it was increased measurably two or three days later, before the city streets had been cleared and while the suburban districts were still snowed under. Earlier in the winter the combined snowfall in New York had amounted to about 10 inches.

As a result of the February weather, while the jobbing trade was little affected—a very large volume of goods having been distributed early in the season—retailers' stocks, in the district of which New York is the center, were very generally cleaned out. This opens the way for a good trade for the coming season when the jobbers will share the benefit of the late storms.

There were reports of snow storms from various other parts of the country during February, but nowhere to the same extent as along the Atlantic. The following is a summary of weather reports for the earlier months:

*November* 26.—Blizzard throughout northern New York; heavy snow at Malone; 6 inches at Plattsburgh and still falling.

*December* 3.—Heaviest snowfall in New England, at this season of the year, since 1898. Maine has had sleighing for a fortnight, and New Hampshire fields have been white for some time, but Massachusetts has been without snow worth mentioning until now.—Hoosick Falls, N. Y., heavy snowstorm all day.—Scranton, Shamokin, and Wilkesbarre, Pa., 8 to 10 inches.—Kansas City, heavy snow westward to the Rocky mountains.—Snow at Charlotte, N. C.

*December* 4.—Eastern half of Kansas covered.—Three to 6 inches heavy wet snow in Nebraska, Wyoming, and lower South Dakota.

*December* 5.—Charlotte, N. C., had second snow of the season.—Snow throughout middle and upper South Carolina.—More snow at Chattanooga, Tenn., than all last winter. Two inches at Holly Springs, Miss.

*December* 9.—Snow at Indianapolis, Indiana; estimated that 10,000 pairs of rubbers were retailed the next day.

*December* 12.—Heavy snow in Wisconsin; 4 inches at Osceola, and still falling.—Travel delayed in Colorado by snow in the mountains.—General snowstorm in Wyoming.

*December* 13.—Severe snowstorm in western Nebraska; 4 to 6 inches generally reported.—Storm throughout western Missouri, most of Kansas, and Oklahoma; snow in many places.

*December* 16.—Storm still raging in parts of Wyoming.—Snow in southeastern Nebraska.

*December* 18.—Four inches of snow in Nebraska.

MILLTOWN INDIA RUBBER CO.

AT a meeting of the directors, at Milltown, New Jersey, on February 14, the vacancy in the board caused by the death of John C. Evans [see page 189 of this issue] was filled by the election of William Sanford, who also was appointed to the position of general manager. Mr. Sanford has had more than twenty years experience in the rubber shoe industry, having been superintendent of the New Brunswick Rubber Co.

RUBBER SUPPLIES FOR THE GOVERNMENT.

THE bureau of engraving and printing of the treasury department, at Washington, will receive bids until March 3 for the following rubber supplies, for the fiscal year beginning July 1: About 500 yards rubber cloth, 45 inches wide; same amount, 36 inches wide; 200 pounds rubber bands for truck wheels; 150 pairs men's rubber boots, friction lined.——The annual reports of the department of justice, at Washington, record in great detail the incidental expenses of that office. There were expended, for rubber goods, for the year ending June 30, 1901, the following sums:

| | | | |
|---|---|---|---|
| Rubber stamps and type.. | $ 63.86 | Rubber coat..... | $ 5.00 |
| Rubber bands (3384 gross) | 231.20 | Horseshoe pads..... | 65.50 |
| Rubber erasers..... | 2.13 | | |
| Typewriter cushion keys.. | 5.00 | Total..... | $378.75 |
| Cuspidor mats..... | 5.60 | | |

Besides which are entries of the purchase of a rubber tired vehicle, and items for the replacement and repairs of other tires.

NEW INCORPORATIONS.

THE H. P. & E. Day Co. (Seymour, Connecticut), December 31, 1901, under Connecticut laws; capital, $40,000. Incorporators: Henry P. Day (199 shares) and Edmund Day (200 shares), both of Seymour; Harry G. Day (1 share), New Haven. The business to be continued by the above company was established in 1853 by the late Austin G. Day, a licensee under Nelson Goodyear's patent, for the manufacture of hard rubber pencils, penholders, and other stationer's articles. In 1858 Day obtained a hard rubber patent in his own name and ceased to pay a royalty under the Goodyear patent. The firm style of H. P. & E. Day has been in use for a number of years.

=The Inter-State Rubber Co. (Omaha, Nebraska), January 28, under Nebraska laws, to deal in rubber goods at wholesale and retail; capital, $150,000. To succeed to the business of Zachary T. Lindsey, established in Omaha in 1886. The incorporators are Z. T. Lindsey, Eben H. Paine (of the United States Rubber Co.), and Carroll S. Montgomery. Mr. Lindsey is president, treasurer, and general manager of the new company, which would indicate that there will be little change in the conduct of the business.

=The Omaha Rubber Shoe Co. (Omaha, Nebraska), January 28, under Nebraska laws, to deal in rubber shoes at wholesale; capital, $150,000. To succeed t e firm of E. H. Sprague & Co., established April 1, 1897, an outgrowth of the Omaha branch of E. G. Stearns & Co. (Chicago). The incorporators are E. H. Sprague, Eben H. Paine (of the United States Rubber Co.) and Carroll S. Montgomery.

=The Detroit Rubber Co. (Detroit, Michigan), February 6, under Michigan laws; capital, paid in, $25,000 in $10 shares. To succeed the partnership firm of A. H. Krum & Co., jobbers of rubber boots and shoes. Incorporators: Albrun H. Krum,

2400 shares; Mans S. Peters, 50 shares; Eben H. Paine (of the United States Rubber Co.), 50 shares.

=Merchants' Rubber Co. (New York city), February 14, under New York laws; capital, $25,000. Incorporators: William Morse, Hackensack, N. J.; Eben H. Paine, New York; Homer E. Sawyer, Malden, Mass. The new corporation, on March 1, succeeds to the business of William Morse & Co., established for ten years past at Nos. 70–72 Reade street, as jobbers of rubber footwear and clothing. Mr. Morse is president and manager; the other members of the corporation are connected with the United States Rubber Co.

=Hird Cushion Tire Co. (Providence, Rhode Island), December 15, under New Jersey laws; authorized capital, $200,000. Incorporators: Louis B. Dailey, Clifford W. Perkins, and Aug. O. Meeker. The object of the company is to manufacture a new rubber vehicle tire of the cushion type, for which three patents have been issued to Charles Hird, of Woonsocket, Rhode Island. It is described as having a circular cellular core made of rubber molded in sectional lengths, placed within a casing of rubber, fabric, and braid. Mr. Hird is now negotiating for capital with which to exploit his invention.

=International Wheel, Tire, and Rubber Manufacturing Co. (New Brunswick, New Jersey), January 15, under New Jersey laws; authorized capital, $3,000,000. Incorporators: William F. Ellis, Springfield, Mass.; Henry L. Prentice, New York city; William Sanford, New Brunswick; H. B. Schofield, Denver, Colorado; F. D. Palmer, Poughkeepsie, N. Y. The purpose is to manufacture a patented cushion tire, for bicycles and vehicles, known as the "Common Sense," patented by E. C. Davis and William F. Ellis, and illustrated in THE INDIA RUBBER WORLD March 1, 1901 [page 178]. Messrs. Davis and Ellis have also obtained a patent [No. 688,399—December 10, 1901] for a vehicle wheel, wire spokes, ball bearing, and with adjustable hub, so designed that the owner of several vehicles might use the same wheels on any one of them. The new company expects to sell tires separately, or wheels complete, and is in negotiation for a rubber factory. W. F. Ellis is president, F. D. Palmer secretary, and William Sanford (late of the New Brunswick Tire Co.), manager.

### ANNUAL MEETINGS.

THE Warren Rubber Co., (Warren, Ohio), jobbers, January 27. Officers elected: H. H. Pierce, president and general manager; Richard Sibson, vice president; H. E. Pierce, secretary; E. F. Nash, treasurer.

=Rubber and Celluloid Harness Trimming Co. (Newark, New Jersey), January 13. Officers elected: Andrew Albright, president; Andrew Albright, Jr., vice president; Thomas M. Kays, secretary; William McMurtry, treasurer.

=La Crosse (Wisconsin) Rubber Mills Co., January 25. Officers reëlected: A Hirshheimer, president; M. Funk, vice president; Albert P. Funk, secretary and treasurer; George S. Andrus, general manager.

=Tuscarora Rubber Co. (Beach City, Ohio), February 10–11. Officers elected: I. J. Miller, president; N. J. Hadley, vice president; J. O. Wilhelm, secretary; J. D. Martz, treasurer; S. F. Sweitzer, manager. Directors: The above and Rev. A. J. Houk and Anton Weigert.

### TRADE NEWS NOTES.

THE E. H. Clapp Rubber Co. (Boston) are erecting a two story addition, 50×70 feet, to their factory buildings at Hanover, Massachusetts, to the great delight of the townspeople, who at one time heard rumors that the factory, which supports a good part of the population, might be removed to another locality.

=The Revere Rubber Co. (Boston) have entered suit in the United States circuit court for the southern district of New York, against the Consolidated Hoof Pad Co., for an injunction and accounting of profits and damages for their alleged infringement of the Kent patent of March 27, 1900, by the pad which they have placed on sale under the name "Air Cushion."

=The Robins Conveying Belt Co. (New York) are understood to have received an important order for their conveyors, for mining use, to be shipped to Fremantle, Australia.

=The Harper & Reynolds Co., of Los Angeles, California, are reported in a local newspaper to have received a consignment of 150,000 feet of hose, entirely of American production, including the rubber used, manufactured by the Bowers Rubber Co. (San Francisco).

=It seems likely that there is to be a considerable colony of Akron men in Liverpool, England. The Akron *Democrat* mentions the departure at one time of three men from that town who have accepted positions with the North Western Rubber Co., Limited, at Litherdale, near Liverpool, in which Akron capital is invested, and others are expected to follow. There are also several Akron men employed at the Liverpool factory of the Diamond Match Co.

=The annual report of the secretary of the board of trade of Hartford, Connecticut, states that 1901 was the most prosperous year in the history of the Hartford Rubber Works Co., their output, measured in money values, having been about 20 per cent. larger than in the preceding year.

=The Goodyear Tire and Rubber Co. (Akron, Ohio) announce that they are now licensed by Morgan & Wright (Chicago), under the patents held by the latter, to manufacture closed end inner tubes for double tube tires.

=The copartnership of H. N. Nice & Brothers, dealers in rubber goods, No. 1215 Filbert street, Philadelphia, was succeeded on February 1 by the copartnership of Nice & Gerhard (Harper N. Nice and William L. Gerhard), at the same address.

=The employés who stopped work in the Hood Rubber Co.'s factory last April are still "on strike," though practically all of them are said to have secured places elsewhere. They have organized Rubber Worker's Union No. 8622, at Cambridgeport, Massachusetts, with a reported membership of 400 men and women. They were addressed on February 9 by Samuel Gompers, president of the American Federation of Labor.

=The Trenton (New Jersey) *Times* says: "The year just closed was a most successful one for the rubber manufacturing industry in this city. One thousand men are now employed in this city in the manufacture of rubber goods."

=The Detroit (Michigan) *Trade* says: "The distribution of boots and shoes from Detroit during the past year has been very large, amounting in value to about $5,000,000, or about 15 per cent. more than for the previous year." The distribution of rubber footwear increased proportionately.

=W. L. Kinsley, who has the reputation of being one of the most expert pattern makers in the line of rubber boots and shoes in the United States, has accepted a position with the Atlantic Rubber Shoe Co.

=H. L. Davis, for a year past manager of the New York house of the Whitman & Barnes Manufacturing Co., has resigned to take charge of the Chicago depot of the Home Rubber Co. Mr. Davis is a Chicago man, with many years experience in the sale of rubber goods in the western states.

=The Goodyear Tire and Rubber Co. have opened a depot for their detachable motor tires, at No. 127 Duane street, New York, in charge of H. J. Dingman.

=The Stein Double Cushion Tire Co., whose projected factory at Akron, Ohio, has been referred to in these columns, are understood to have been prevented by the severe weather from pushing work on the new buildings as rapidly as was planned, but they hope to be at work by May 1.

=Colton Fulton, of Trenton, New Jersey, sued the Grieb Rubber Co., of that city, for $25,000 damages, for the loss of both hands while at work in their factory, and on February 1, a jury awarded him a verdict of $6500. Fulton alleged that a shock from an improperly placed electric wire caused him to fall into a machine. The defense introduced electricians to prove that no fault should be found with the wires.

=The Gutta Percha and Rubber Manufacturing Co. of Toronto, Limited, have appealed from the verdict for $2000 awarded to Hugh McCaughertes, for injuries received in their factory, the details of which appeared in THE INDIA RUBBER WORLD for December.

=An attractive little pocket mirror with a celluloid back, on which is printed in color a fine cut of a varied assortment of mechanical rubber goods, is used by B. C. Tillinghast, No. 242 Market street, Philadelphia, to advertise his business.

=Fred. J. Rowell, formerly overseer in the United States Rubber Co.'s wool boot department at Woonsocket, R. I., has become overseer of spinning at the Rockfall Woolen Co.'s mill, Middletown, Conn.

=The annual ladies' night of the Framingham board of trade occurred on February 19, the entertainment being given at the factory of the Rubber Soled Leather Shoe Co., at South Framingham, Mass. The program included an examination of the company's machinery and processes, informal reception, addresses, lunches, and dancing.

=A dispatch from Lima, Peru, reports the arrest there of a Swiss-American accused under the name of Hermann Schneider and other names of negotiating forged drafts in Mexico and South America. His valise contained bills purporting to be drawn by important New York commercial houses on the Rothschilds, of London, and indorsed by the "New York Mahogany and Rubber Co."

=The Cleveland Rubber Works have sent out a very neat little pocket calendar, with much valuable information on it, and some very modest suggestions concerning their druggists' sundries business. A pretty piece of printing on the calendar is a diminutive water bottle in gold that adorns the first page.

=Robert B. Baird, dealer in crude rubber and rubber manufacturers' supplies, has removed his New York office from No. 253 Broadway to No. 38 Murray street, to date from March 1.

=The New York office of the Boston Rubber Shoe Co., formerly at No. 142 Duane street, has been consolidated with the general offices of the United States Rubber Co., Nos. 9–15 Murray street.

## PERSONAL MENTION.

MR. W. R. BRIXEY, the insulated wire and cable manufacturer, was among those who were severely injured by the recent dynamite explosion in the New York subway. He was a resident at the time of the Murray Hill Hotel, in front of which the explosion occurred. At the latest accounts a hope was entertained of Mr. Brixey's recovery.

=Mr. Fred. C. Hood, treasurer of the Hood Rubber Co. (Boston), has been quite ill with diphtheria, but is now wholly recovered and back at his desk.

=Mr. Raymond B. Price, factory manager of the Calumet Tire Rubber Co. (Chicago), is taking a mid-winter vacation in Mexico.

=Mr. H. C. Burton, of Parker, Stearns & Sutton (New York), after some weeks of rest, during which he made a visit to Europe, is back at his office very much improved in health, a fact that greatly rejoices his friends in the rubber trade.

=Mr. Edward H. Garcin, vice president of the Trenton Rubber Manufacturing Co., was married on February 4 to Miss Elizabeth Bratton, at Edgewater Park, New Jersey. Mr. and Mrs. Garcin will make their home at "Shorelands," their beautiful country place in Edgewater Park, on their return from the bridal trip.

=On leaving Akron, Mr. H. C. Corson, lately vice president of The B. F. Goodrich Co., took with him as an evidence of the regard of those associated with him in the offices of the company, a very handsome loving cup. It was presented on the day of his formal retirement from the company.

=Colonel George T. Perkins, president of the B. F. Goodrich Co. (Akron, Ohio), has given to the Union Charity Association of Akron $7500, toward the erection of a home in which children of the poor will be taught sewing, cooking and the simpler branches of household work, such as boys and girls can do. There will be reading rooms, gymnasium, swimming pool, etc., for the hours of recreation. The building will be named Grace Charities, in memory of Colonel Perkins' daughter. The Union Charity Association has been carrying on this work for two years, but has had no home for it.

=Mr. Charles R. Flint has resigned the presidency of the American Ordnance Co., the controlling interest in which has been purchased by what is known as the Hoadley-Cramp syndicate. Joseph H. Hoadley has been elected president, and plans are said to be forming for a consolidation of interests in ordnance manufacture, with $15,000,000 capital.

=Mr. Edward H. Gorse, treasurer of the Monarch Rubber Co. (St. Louis), was a recent visitor at the offices of THE INDIA RUBBER WORLD.

=Mrs. Helen Allen Wright, widow of the late Rufus Wright, of Morgan & Wright (Chicago), whose death occurred a year and a half ago, died in Chicago on February 16 She had been an invalid for many years. Funeral services were held at her early home in Akron, Ohio, February 19, and the remains were nterred in Glendale cemetery there beside those of her husband. A large party of Chicago friends attended the funeral ervices in Akron. Mrs. Wright was a daughter of the late Jacob Allen, a wealthy pioneer manufacturer of Akron.

## RUBBER GOODS MANUFACTURING CO.

THE annual meeting this year, instead of being held in February as formerly, will be held on the second Thursday in April.==The following is a record of trading in the company's shares on the New York Stock Exchange:

| DATES. | COMMON. | | | PREFERRED. | | |
|---|---|---|---|---|---|---|
| | Sales. | High. | Low. | Sales. | High. | Low. |
| Week ending Jan. 26 | ..... | .... | .... | 100 | 68½ | 68½ |
| Week ending Feb. 1 | 2,210 | 18¼ | 17¾ | 972 | 69¼ | 69 |
| Week ending Feb. 8 | 150 | 18 | 18 | 120 | 70 | 70 |
| Week ending Feb. 15 | 500 | 18½ | 18 | 235 | 67 | 66 |
| Week ending Feb. 21 | 1,880 | 18¼ | 17½ | .... | .... | .... |

## THE GLUCOSE STARCH TRUST.

THE new company which is to take over the controlling interest in the Glucose Sugar Refining Co., the National Starch Co., the Charles Pope Glucose Manufacturing Co. and the Illinois Sugar Refining Co., as well as a little less than a majority of the stock of the New York Glucose Co., will be known as the Corn Products Co. Arrangements have been made to have the new company incorporated at Trenton, with an authorized capitalization of $50,000,000 common stock and $30,000,000 7 per cent. cumulative preferred stock. The underwriting is in

[CONTINUED ON PAGE 198.]

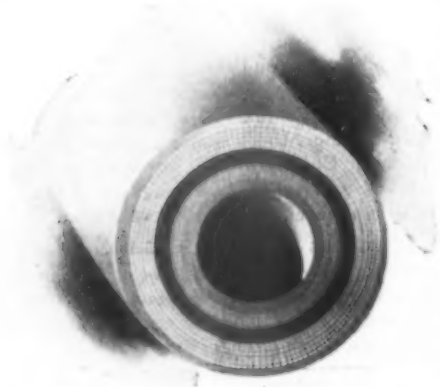
# THE RUBBER VEHICLE TIRE INTEREST.

### THE 1902 GOODRICH MODEL.

THIS illustration represents a sectional view of the detachable motor tire as now manufactured by The B. F. Goodrich Co. (Akron, Ohio.) It is less oval in form than the tires of the same class marketed by this firm prior to the present season, affording a broader tread and lessening the strain upon the tire walls. This model may be described as that of the "Continental" type of motor tires, manufactured in Europe, whereas the oval section tire more nearly represented the "Michelin" construction. While the Goodrich company are prepared to accept orders for motor tires of various forms, the detachable tire, as shown in the cut, may be considered their standard model for automobile work.

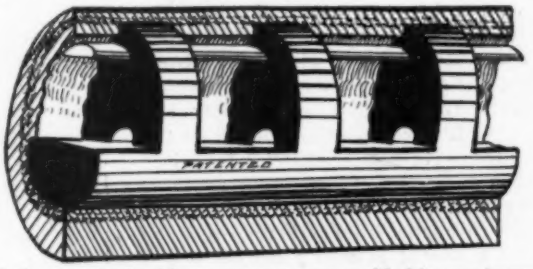
### KEMPSHALL CUSHION PNEUMATIC TIRE.

THIS tire is built for the purpose of obviating liability to puncture, while retaining a degree of elasticity which it is not possible to secure through other forms of construction equally heavy. But should a puncture occur, the tire wall is heavy enough to support the vehicle without injury to the tire itself. In reducing the size of the air chamber, the elastic qualities of the pneumatic tire have been preserved through the introduction of a heavy wall of sponge rubber between the two layers of fabric. The various plies of fabric in the tire are protected by a skin of rubber which prevents their chafing together, while adding to the elasticity. The outer cover is made of the well known motor facing compound, especially developed by the International Automobile and Vehicle Tire Co. These tires are described as being well adapted to light as to heavy vehicles, and have been ridden over 7000 miles without any bad effects. Manufactured, under a license from The Rubber Tire Co., of America, by the International Automobile and Vehicle Tire Co.



### THE BROOKE CARRIAGE TIRE.

THE distinctive feature of this tire is an inner core of rubber, braced by an outer covering of rubber and canvas. The partial, though imperfect, adhesion of the already cured core to the outer casing leaves a weakness at the line of contact and so produces a bracing effect which would be absent if the core and the attached rubber supports were molded in one integral whole. Although this tire can be manufactured, if required, in endless tread form, the owners prefer to introduce it in straight lengths, sold by the foot. These lengths are applied to the rim of the wheel by means of a special crescent shaped wire, brazed at the ends. The crescent side is intended to fit snug against the canvas outer casing of the tire, holding it firmly to the crescent rim of the wheel. The flat portion of the wire, joining the curved portion, forms acute side angles, which tend to grip the tire when receiving side blows, instead of the wire rolling with the tire as would be the case with a circular wire. This tire was designed first for cycling use, but has since been made in larger sizes for automobiles and other vehicles. [Brooke Airless Rubber Tire Co.]




### CONNECTICUT FIBRE TIRE.

THIS tire is designed, in the language of the inventor, to possess all the advantages of a solid and of a pneumatic, but with none of the disadvantages of either. It is an armored tire, with double compartments, one for the air and one for the armor. The latter lies between the air tube and the tread of the tire, making it practically non puncturable, while, it is claimed, not interfering with the resiliency of the tire. The material enclosed in this compartment is cotton which has been subjected to a patented chemical process. This armor is not stiff or hard, and an additional advantage claimed for it is that it takes up an important amount of strain or jar, thus protecting the air tube against the injury to which this feature of most pneumatic tires is subject. The new tire has been applied to bicycles, wagons, and automobiles, including one vehicle weighing 3000 pounds, with satisfactory results. The specially prepared fabric used in the tires is also offered for use in filling horse collars, bicycle saddles, and rubber heels, as well as a substitute for felt. [Connecticut Fiber and Tire Co., Bridgeport, Conn.]

### PUNCTNOT TIRE.

THIS tire is distinguished, in the first place, by its non puncturable feature, provided by a patent secret process filler, as indicated by the illustration. It is likewise non collapsible, since this same filler provides a resilient cushion upon which one can ride with comfort even should the tire become deflated. The "Punctnot" has an unconfined air tube, with room for expansion against the filler. This is offered as an improvement over other types of pneumatic tire construction, in which the air tube is surrounded wholly by a rigid fabric, which prevents expansion and is a cause of leaks forming and explosions occurring. It is described as being lighter in weight than other tires of the same size. It is made in all sizes required for bicycle and automobile use. It is understood that this is not a low priced tire, the advantages claimed for it being offered as an offset to the higher charge made for it. The selling agents are the new firm of Coe, Smith & Co., No. 158 Summer street, Boston, the head of which firm, Charles A. Coe, long was an important member of the rubber shoe jobbing trade.

### PRICES OF BICYCLE TIRES.

THE California State Cycle Board of Trade, organized recently at San Francisco, and embracing the principal dealers throughout the state, entered into an agreement to charge the following net prices for the various brands of bicycle tires when applied to wheels:

| | | | |
|---|---|---|---|
| Palmer export | $5.50 | Defender special | $3.75 |
| Goodrich anti-cactus 999 | 5.00 | Fisk 55 | 3.75 |
| G. & J. | 5.00 | Goodrich 19 | 3.75 |
| Palmer | 5.00 | Hartford 70 | 3.75 |
| Cataplero | 4.50 | Goodrich M. & W. | 3.50 |
| Fisk puncture proof | 4.50 | Morgan & Wright | 3.50 |
| Fisk tandem | 4.50 | Guaranteed, 60 days | 3.00 |
| Goodrich 999 | 4.50 | Unguaranteed | 2.75 |
| Goodrich anti-cactus | 4.50 | Casings—Dunlop | 3.75 |
| Goodrich M. & W. special | 4.50 | G. & J. | 3.75 |
| Goodrich 19 tandem | 4.50 | Goodrich M. & W. | 2.75 |
| Hartford 80 | 4.50 | Morgan & Wright. | 2.75 |
| Hartford special | 4.50 | Inner tubes—Goodrich M. & W. | 2.00 |
| Hartford thorn | 4.50 | Dunlop | 1.75 |
| Milwaukee puncture proof | 4.50 | G. & J. | 1.75 |
| Fisk 88 | 4.00 | Hartford | 1.50 |
| Hartford 77 | 4.00 | M. & W. | 1.50 |

Tires not put on by seller, 25 cents less.

## LA ZACUALPA RUBBER.

THE work of La Zacualpa Rubber Plantation Co. (San Francisco) has been referred to several times in THE INDIA RUBBER WORLD, and they now afford a further opportunity for a mention of the progress made on their plantation in the state of Oaxaca, Mexico. As before recorded, La Zacualpa plantation, though formed only about three years ago, embraces several thousand rubber trees (*Castilloa elastica*) planted by a former owner of the land, in 1889 and 1890, which are now yielding an average of 2½ pounds of rubber a year. The company have favored THE INDIA RUBBER WORLD with a neat package comprising three paper boxes, each containing a sample of this cultivated rubber.

No. 1 shows the crude rubber, after coagulation, in the form in which it is shipped from the plantation.

No. 2 is a sample of the rubber, after having been washed, sheeted, and dried, in a factory.

No. 3 is a strip of rubber from the same lot, vulcanized, only enough sulphur having been added to effect a proper cure—in fact, pure vulcanized rubber.

The rubber thus shown is of good quality, and the educational value of distributing such samples—several thousand in number, we understand—must be very great, and is to be commended as aiding to extend the interest in rubber planting. La Zacualpa company also send advance sheets of a new pamphlet about to be issued, in regard to their work, and the object of which is to inform people not already familiar with the subject in regard to the nature of India-rubber and the methods by which it is produced. The booklet appears to be well designed for this purpose, being both more accurate and much clearer than many other rubber planting publications that have come to hand.

Another new publication by the company is a report on La Zacualpa plantation by one of its shareholders—handsomely illustrated—of which fuller mention will be made at a later date. Some of the company's business plans are outlined in their advertisement, on another page of this paper. The company are understood to have sold a considerable number of shares in the Eastern states, including $10,000 worth in the town of Fitchburg, Massachusetts.

## NEW TRADE PUBLICATIONS.

THE W. D. ALLEN MANUFACTURING CO. (Chicago) have issued their Catalogue No. 16, devoted to Leather Belting, Brass Goods, Piston Packing, and Specialties in Mill Supplies—all of their own manufacture—and suitable for keeping in stock together with the leading lines of mechanical goods, of which the house named are also large handlers. [6¾″×10¼″. 63 pages.] ——A desirable feature of W. D. Allen's catalogues is that the different issues are uniform in size, which adds to the convenience of keeping them together for reference.

ALLGEMEINE ELEKTRICITATS-GESELLSCHAFT—the German General Electric Co.—(Berlin) have issued under one cover a series of twenty-six of their trade announcements, appearing originally during the past four years, which, collectively, form a very complete catalogue. No. 1 is devoted to copper wire; Nos 3, 10, and 23 to hard rubber insulation tubes; No. 9 to "Stabilit"—a patented hard rubber substitute; No. 14 to telephone cables; No. 15 to trolley wire; No. 16 to vulcanasbestos; Nos. 18 to hard rubber accumulator cases, etc. Some of the numbers are price lists. A liberal use is made of illustrations, including views of the factory, and the printing is of a high order; the size of the pages is 9¼×11¼ inches.——The capital of this company now amounts to 60,000,000 marks [$15,000,000], on which a dividend of 12 per cent. was paid last year. For four years previously 15 per cent. had been paid on a smaller capitalization. The reserve fund has reached the legal maximum of 30,000,000 marks, or one-half the share capital, so that the allotment of a portion of the yearly earnings for reserve will not be longer necessary, and a larger share may be available for dividends.

### ALSO RECEIVED.

Foster Engineering Co., Newark, New Jersey.=The Foster Pressure Regulator (Reducing Valve) and other High Grade Specialties for Steam, Water, Gas, or Air. 96 pages.

[CONTINUED FROM PAGE 195.]

charge of Cuyler, Morgan & Co. (New York).——The new enterprise interests the rubber trade only so far as corn-oil substitute goes. As the cheapest of oil substitutes, of course this has had a fairly large sale, but the large percentage of sulphur in most of it and the fact that it is at best only a filler, leads many to believe that a reaction will shortly come in favor of other substitutes.

NEW YORK RUBBER CO.

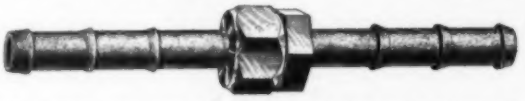
THE employés of this company, on a recent payday, were pleasantly surprised when each received two envelopes instead of one, the extra envelope being inscribed: "Enclosed you will find one week's extra pay, with the best wishes of the New York Rubber Co." This was regarded by the employés as indicating that the company had experienced a prosperous year.

SHOE JOBBERS MEET IN NEW YORK.

THE annual meeting and dinner of the Middle States Shoe Jobbers' Association occurred in New York, at the Hotel Marlborough, on February 20. The attendance was good, including the heads of many houses in New York, Philadelphia, and other important towns that are large handlers of rubber footwear. A feature of the proceedings at the banquet was an address on the rubber trade by Colonel Samuel P. Colt, president of the United States Rubber Co. He went into the history of rubber and talked entertainingly, and his address was listened with great interest by his audience.

## EXTRA HEAVY STEAM HOSE COUPLING.

THE illustration herewith represents a new style extra heavy steam hose coupling, for manufacturing which H. B. Sherman Manufacturing Co. (Battle Creek, Michigan) have got out patterns and tools for sizes of ¾ inch, 1 inch, 1¼ inch, and 1½ inch. This coupling is more than double the weight of the



regular steam coupling, and is intended for use in places where hose and fittings receive severe usage. Concerns interested in learning more in regard to coupling of the character indicated above are invited to write to the firm named, for descriptive circular.

## REVIEW OF THE CRUDE RUBBER MARKET.

THE work of liquidating the stocks of rubber held by a New York house which recently passed into the hands of receivers, has been in gradual progress during the past month, though, it is understood, the major part yet remains to be disposed of. Evidently the financial houses interested through having made advances on these stocks have preferred a policy of caution to one of haste in realizing on their holdings—else the market would have become demoralized. While business has been done at lower figures than have been known for several years past—fine Upriver Pará a year old having changed hands at a price as low as 73 cents—the fact has not stimulated manufacturers, as a rule, to buy beyond present requirements. It is not their practice to buy freely on a falling market, and there is to be considered not only the unusually liberal supplies in this market, but the possibility of a record breaking production on the Amazon. In another column space is given to a repeated prediction from Liverpool of a shortage in the winding up months of the Pará season, but it seems fair to state that these views are not generally shared in the trade. There has been some demand on the New York market for shipment to Europe. Receipts at Pará for the crop season, up to February 26, of Rubber and Caucho, amounted to 20,335 tons, against 17,030 tons last year to March 1.

New York quotations on February 27 were:

| PARÁ. | | AFRICAN. | |
|---|---|---|---|
| Islands, fine, new.....69 | @70 | Tongues..... 43 | @44 |
| Islands, fine, old.....72 | @73 | Sierra Leone, 1st quality60 | @61 |
| Upriver, fine, new....71 | @72 | Benguella. . ... ....44 | @45 |
| Upriver, fine, old.....74 | @75 | Cameroon ball.....43 | @44 |
| Islands, coarse, new...45 | @46 | Flake and lumps.....28 | @29 |
| Islands, coarse, old... | @ | Accra flake.....16 | @17 |
| Upriver, coarse, new..59 | @60 | Accra buttons.....43 | @44 |
| Upriver, coarse, old... | @ | Accra strips.....49 | @50 |
| Caucho(Peruvian)sheet 46 | @47 | Lagos buttons.....43 | @14 |
| Caucho (Peruvian) ball 53 | @54 | Lagos strips.....48 | @49 |
| CENTRALS. | | Madagascar, pinky.... | @ |
| Esmeralda, sausage...50 | @51 | Madagascar, black .... | @ |
| Guayaquil, strip.....46 | @47 | EAST INDIAN. | |
| Nicaragua, scrap... .50 | @51 | Assam.....54 | @55 |
| Mangabeira, sheet....39 | @40 | Borneo.....33 | @42 |

Late Pará cables quote:

| | Per Kilo. | | Per Kilo |
|---|---|---|---|
| Islands, fine. ... ... .. | 4$400 | Upriver, fine..... | 5$000 |
| Islands, coarse ..... | 2$300 | Upriver, coarse..... | 3$500 |

Exchange, 12*d*.

Manáos advices, same date:

| | | | |
|---|---|---|---|
| Upriver, fine..... | 4$400 | Upriver, coarse. ..... | 3$100 |

Exchange 12*d*.

NEW YORK RUBBER PRICES FOR JANUARY (NEW RUBBER.)

| | 1902. | | 1901. | | 1900. | |
|---|---|---|---|---|---|---|
| Upriver, fine..... ..... | 77 | @86 | 87 | @92 | 108 | @110 |
| Upriver, coarse..... ... | 62 | @65 | 65 | @69 | 84 | @ 87 |
| Islands, fine..... .. . .... | 75 | @81 | 84 | @88 | 105 | @108 |
| Islands, coarse..... .... | 47 | @52 | 48 | @52 | 64 | @ 66 |
| Cametá, coarse..... | 50 | @52½ | 53½ | @55 | 65 | @ 69 |

### *Statistics of Para Rubber (Excluding Caucho).*

NOTE.—The figures herewith, indicating New York stocks of January 1, will be found to vary largely from the figures for the same date given in the last INDIA RUBBER WORLD. The explanation is that certain holdings were that time concealed from the trade, whereas by February 1 these holdings were better known.

| | NEW YORK. | | | | | | |
|---|---|---|---|---|---|---|---|
| | Fine and Medium. | Coarse. | | Total 1902. | Total 1901. | Total 1900. |
| Stocks, January 1.... *tons* | 1105 | 34 | = | 1139 | 658 | 410 |
| Arrivals, January..... | 855 | 475 | = | 1330 | 1094 | 1707 |
| Aggregating..... | 1960 | 509 | = | 2469 | 1752 | 2117 |
| Deliveries, January..... | 669 | 461 | = | 1130 | 1100 | 1471 |
| Stocks, January 31.... | 1291 | 48 | = | 1339 | 652 | 656 |

| | PARÁ. | | | ENGLAND. | | |
|---|---|---|---|---|---|---|
| | 1902. | 1901. | 1900. | 1902. | 1901. | 1900. |
| Stocks, January 1.... | 150 | 660 | 580 | 1290 | 780 | 440 |
| Arrivals, January..... | 3825 | 2445 | 3620 | 1156 | 1195 | 610 |
| Aggregating..... | 3975 | 3105 | 4200 | 2455 | 1975 | 1050 |
| Deliveries, January... | 3465 | 2390 | 2760 | 1225 | 900 | 600 |
| Stocks, Jan. 31.. | 510 | 715 | 1440 | 1230 | 1075 | 450 |

| | 1902. | 1901. | 1900. |
|---|---|---|---|
| World's supply, January 31..... | 5329 | 3676 | 4219 |
| Pará receipts, July 1 to January 31..... | 16,079 | 13,735 | 11,085 |
| Pará receipts of Caucho, same dates ..... | 1381 | | |
| Afloat from Pará to United States, Jan. 31. | *1017 | 374 | 474 |
| Afloat from Pará to Europe, January 31..... | †1565 | 860 | 1189 |

[* Includes 87 tons Caucho. † Includes 245 tons Caucho.]

In regard to the financial situation, Albert B. Beers (broker in India-rubber, No. 58 William street, New York), advises us as follows:

"During February there has been a fair demand for paper, though principally from out of town banks, and the average ruling rates for the month have been 4½@5 per cent. for the best rubber names, and 5¼@6 per cent. for the smaller concerns not so well known."

### *Less Rubber At New Orleans.*

INDIA-RUBBER imports at New Orleans during 1901 amounted to 469,865 pounds, worth $264,162, against 572,873 pounds in 1900, worth $357,070.

### *Antwerp.*

TO THE EDITOR OF THE INDIA RUBBER WORLD: During February two rubber auctions were held at Antwerp, the first on the 7th instant, when 58 tons were exposed and 45 tons sold. Good qualities, especially black Kassais, were firm, but secondary qualities were neglected and sold 1 to 2 per cent. below estimations. The other sale was held on the 14th instant, when about 256 tons, all Congo sorts, were exposed, of which 198 tons were sold. Kassais were again firm, but other sorts especially inferior qualities were weak, and about 5 per cent. lower. The principal lots sold as follows (prices in francs per kilogram):

| | Valuation. | Price Obtained. |
|---|---|---|
| 8 tons Lopori I. | 7.80 | 7.20 |
| 42 " Upper Congo | 7. | 6.62½@6.80 |
| 17 " Lake Leopold. | 4.60 | 4.80 |
| 30 " Uelé strips | 6.25 | 5.87½ |
| 10 " Aruwimi | 6.25 | 5.75 |
| 14 " Congo-Katanga | 5.25 | 5.37½ |

Importations since January 1—613 tons Congo sorts; 22 tons other sorts. Sales since January 1, about 660 tons. Actual stocks, about 400 tons. C. SCHMID & CO.

Antwerp, Belgium, February 14, 1902.

ANTWERP RUBBER STATISTICS FOR JANUARY.

| DETAILS. | 1902. | 1901. | 1900. | 1899. | 1898. |
|---|---|---|---|---|---|
| Stocks, Jan. 1. Kilos | 414,709 | 614,039 | 291,991 | 263,340 | 94,463 |
| Arrivals January | 636,243 | 543,626 | 475,880 | 285,833 | 87,337 |
| Congo sorts | 613,876 | 443,073 | 430,996 | 255,412 | 80,346 |
| Other sorts | 22,367 | 100,553 | 44,884 | 30,421 | 6,991 |
| Aggregating | 1,050,952 | 1,157,665 | 767,871 | 549,173 | 181,800 |
| Sales January | 407,253 | 509,034 | 225,773 | 250,662 | 90,096 |
| Stocks, Jan. 31. | 643,699 | 648,631 | 542,098 | 298,511 | 91,704 |

ARRIVALS AT ANTWERP.

JANUARY 24.—By the *Albertville*, from the Congo:

| | | | |
|---|---|---|---|
| Bunge & Co | (Société Anversoise) *kilos* | 5,300 | |
| Bunge & Co. | (Domaine privé Etat du Congo) | 211,000 | |
| Bunge & Co. | (Plantations Lacourt) | 4,080 | |
| Bunge & Co. | (Comité Spécial Katanga) | 4,822 | |
| Société A B I R. | | 11,600 | |
| M. S. Cols. | (Centrale Africaine) | 10,000 | |
| M. S. Cols. | (Société Ikelemba) | 1,000 | |
| M. S. Cols. | (Cie. Plantation de Société Lubefu) | 13,000 | |
| Société Equatoriale Congolaise. | | 2,000 | |
| Comptoir Commercial Congolais. | | 3,000 | |
| Ch. Dethier. | (Société Belgika) | 20,000 | |
| Ch. Dethier. | (Société la Loanje) | 12,000 | |
| Société Coloniale Anversoise. | (Société La Djuma) | 6,000 | |
| Société Coloniale Anversoise (Belge du Haut Congo) | | 13,040 | |
| Trafic Congolais. | | 2,900 | |
| L. & W. Van de Velde (Comptoirs Congolais Velde). | | 3,300 | |
| Credit Commercial Congolais. | (La Lulonga) | 400 | 323,442 |
| Arrivals, January 3 | | | 355,000 |
| Total arrivals, January | | | 658,442 |

FEBRUARY 17.—By the *Philippeville*, from the Congo:

| | | | |
|---|---|---|---|
| Bunge & Co. | (Société Anversoise) *kilos* | 40,200 | |
| Bunge & Co. | (Domaine privé Etat du Congo) | 292,500 | |
| Bunge & Co. | (Plantations Lacourt) | 5,000 | |
| Bunge & Co. | (Comité Spécial Katanga) | 5,060 | |
| Bunge & Co. | (Société Isangi) | 12,000 | |
| Société A B I R. | | 11,000 | |
| Ch. Lethier. | (Société la Loanje) | 2,000 | |
| Ch. Lethier. | (M'poko Gratry) | 250 | |
| Ch. Lethier. | (Société Belgika) | 4,000 | |
| Société Coloniale Anversoise. | (Société La Djuma) | 500 | |
| Société Coloniale Anversoise | | 16,737 | |
| Société Coloniale Anversoise. | | 3,272 | |
| Société Coloniale Anversoise. | (Société la Lomami) | 22,937 | |
| Société Coloniale Anversoise. | | 5,000 | |
| Comptoir des Produits Coloniaux. | (Kadei Sangha) | 6,000 | |
| L. & W. Van de Velde. | (Comptoirs Congolaise Velde) | 6,000 | |
| M. S. Cols. | (Produits Vegetaux du Kassai) | 8,000 | |
| M. S. Cols. | (Cie. Plantation Société Lubefu) | 13,000 | 453,456 |
| Arrivals for Jannary | | | 658,442 |
| Congo arrivals since January 1. | | | 1,011,898 |

### *Para.*

KANTHACK & CO. report [February 6]: "Although movements were somewhat irregular, an improvement in prices was slowly but gradually taking place until within the last few days, when fresh unfavorable news from the consuming markets caused a sudden relapse. The demand having, however, remained normal, the actual decline has not been serious so far, and has done little harm to the sellers, as the receding exchange has been favorable towards maintaining currency prices.

"It is understood here that the Manáos government has annulled the decree by which the Upriver rubber was retained for that market, in which case a good proportion will find its way to Pará, as in former years."

The office and warehouse of Frank da Costa & Co., at Pará, were destroyed by fire on January 14, involving the loss of 28 tons of rubber. The firm's loss, exclusive of insurance, is reported at £12,000. Two firemen were killed and several injured.

The state of Pará has negotiated in London a loan of £1,450,000, represented by an issue of 5 per cent. gold bonds, to be redeemed within 50 years, and secured by a special lien upon export duties and upon the other revenues of the state. The price of the issue was 88 per cent. It is understood that the public subscribed for 9 per cent. of the issue, leaving 91 per cent. in the hands of the underwriting bankers.

### *Liverpool.*

MARIUS & LEVY report [February 14]:

Receipts have been so far 3810 tons in excess of the last crop, but this excess will be wiped out during February and March, as from information which reached us three days ago, the revised estimate for these two months combined is 4300 to 4500 tons against 8200 tons last year, showing a decrease of 3700 tons, which practically annihilates the excess so often prophesied by some operators who gave out that fine Pará would go to 3 shillings per pound, owing to the expected large receipts. In some districts, like the Javary river, Juruá, and Purús, the crop is practically over, and Upriver keeps 2*d*. and 3*d*. per pound higher in Manáos and Pará than the parity here.

The selling of the stock of the American concern which is in trouble, has had an effect on the market which, however, will be of a very short duration, as we hear that though two or three bankers are willing to liquidate their warrants, the others insist on waiting for higher prices.

One thing must be borne in mind, which is, that Mediums have not suffered in proportion to Fine, which shows that it is only owing to manipulation that the great fall in prices of the pure grades has occurred. It is reported that the arrivals of African and Congo sorts will be much smaller in the near future. Thus everything points to an almost immediate advance in all qualities. We maintain more than ever that

the actual crop will be very much short of the last one, and again emphatically assert that our prognostications, with regard to a much higher level of prices, will be realized very shortly.

### *London.*

EDWARD TILL & CO., under date of February 1, report stocks:

| | | 1902. | 1901. | 1900. |
|---|---|---|---|---|
| LONDON | Pará sorts.....tons | — | — | — |
| | Borneo | 134 | 193 | 223 |
| | Assam and Rangoon | 54 | 20 | 17 |
| | Other sorts | 414 | 730 | 403 |
| | Total | 602 | 943 | 643 |
| LIVERPOOL | Pará | 1241 | 1082 | 449 |
| | Other sorts | 831 | 1104 | 756 |
| | Total, United Kingdom | 2674 | 3129 | 1848 |
| | Total, January 1 | 2794 | 2901 | 1855 |
| | Total, December 1 | 2525 | 3061 | 1789 |
| | Total, November 1 | 2602 | 3040 | 1860 |
| | Total, October 1 | 2802 | 2846 | 1831 |
| | Total, September 1 | 2736 | 3170 | 1988 |
| | Total, August 1 | 2944 | 3645 | 1878 |
| | Total, July 1 | 3128 | 3653 | 2247 |

PRICES PAID DURING JANUARY.

| | 1902. | 1901. | 1900. |
|---|---|---|---|
| Pará fine, hard | 3/2½@3/6½ | 3/7 @3/10½ | 4/6½@4/9½ |
| Do soft | | 3/7 @3/ 9½ | 4/5½@4/9 |
| Negroheads, Islands | 2/- | 2/1½@2/ 2 | 2/8½@2/9½ |
| Do scrappy | 2/7½@2/8½ | 2/9 @2/ 9½ | 3/7½@3/7½ |
| Bolivian | No sales. | No sales. | 4/7½@4/9½ |

### *Hamburg.*

TO THE EDITOR OF THE INDIA RUBBER WORLD: Transactions in rubber in this month at the first of the month were very quiet, but later have become more animated, leading to a firmer tendency in prices, followed again by weakness. There is a desire here to clean out stocks, in view of which, the present would seem to be a good time to buy rubber here. Sales have been made this week at the following prices, in marks per kilogram:

| | |
|---|---|
| Bolivian, fine and hard cure | 7.15 @ 7.20 |
| Manáos, scrappy | 5.75 @ 5.85 |
| Mozambique ball, finest red | 6.80 @ 6 85 |
| Mozambique ball, fine red | 6.50 @ 6.60 |
| Mozambique ball, good red | 6.15 @ 6.20 |
| Mozambique ball, mixed | 5.80 @ 5.85 |
| Mozambique spindles, fine | 6.20 @ 6.25 |
| Massai niggers, fine red | 5.75 @ 5.90 |
| Massai niggers, mixed | 5.50 @ 5.60 |
| Congo thimbles, fine | 4.90 @ 4 95 |
| Congo thimbles, medium | 4.50 @ 4.60 |
| Congo thimbles, inferior red | 2.90 |
| Loanda niggers, regular quality | 4.15 @ 4.20 |
| Adeli ball, red | 6.20 @ 6.15 |
| Batanga ball | 4.10 @ 4.15 |
| Ecuador scraps, fine | 5.40 |
| Ecuador scraps, mixed | 5.20 |
| Guatemala slabs, fine | 4 30 @ 4.40 |

Hamburg, February 11, 1902.

### *Rotterdam.*

TO THE EDITOR OF THE INDIA RUBBER WORLD: While fine Pará has been subjected to considerable fluctuations of late, and the tendency generally has been weak, Congo and other medium sorts, in this market, have continued to hold their own, and even show an improvement over former prices. The last sales here attracted much attention, and the parcels offered went off under keen competition, though there was no buying for American account. The following lots changed hands:

| | Kilos. | | Kilos. |
|---|---|---|---|
| Upper Congo, red, prime | 1,200 | Upper Congo, cut red ball | 4,400 |
| Do black | 1,100 | Congo thimbles, red | 15,000 |
| Do small red ball | 4,500 | Do ball | 2,225 |
| Do small ball | 14,000 | Do slightly sticky | 5,300 |
| Do red Loanda kind | 10,200 | Do mixed | 1,500 |
| Do markled | 1,375 | Mozambique sausages, stickless | 5,850 |
| Do red, barky | 2,300 | Do Do sandy | 1,650 |
| Do red Benguella kind | 3,850 | East Indian | 1,790 |
| Do reddish unripe | 5,350 | Borneo, No. 2 | 840 |
| | | Total | 82,430 |

*Gutta-percha.*—Some 10,000 kilograms fine Macassar quality have been offered, but remain unsold on account of the excessive price asked by importers. No *Balata* has come to this market in the course of the last two months.

A. KNOTTENBELT & CO.

Rotterdam, February 5, 1902.

### *Rotterdam Rubber Statistics, 1901.*

[*Supplied by* WEISE & CO.]

INDIA-RUBBER ARRIVALS (KILOS.)

| | | | |
|---|---|---|---|
| Thimbles, red | 140,200 | Soudan | 37,000 |
| Congo ball | 18,300 | All other | 10,300 |
| Kassai, red | 276,300 | | |
| Kassia, black | 22,550 | Total, 1901 | 853,250 |
| Upper Congo | 301,000 | Total, 1900 | 877,450 |
| Sierra Leone | 11,000 | Total, 1899 | 804,750 |
| Mozambique | 18,700 | Total, 1898 | 656,400 |
| Java and Sumatra | 17,900 | Total, 1897 | 705,650 |

| | 1902. | 1901. | 1890. | 1899. |
|---|---|---|---|---|
| Stocks, January 1 | 67,300 | 80,600 | 38,900 | 36,100 |

BALATA ARRIVALS (KILOS.)

| | 1901. | 1900. | 1899. | 1898. |
|---|---|---|---|---|
| Surinam sheet | 211,950 | 161,600 | 95,250 | 76,800 |
| Venezuela block | 31,450 | 23,500 | 52,200 | 158,800 |
| Total | 243,400 | 185,100 | 147,450 | 238,600 |
| Stocks, end year | — | — | 5,000 | — |

GUTTA PERCHA (TONS.)

| | 1901. | 1900. | 1899. | 1898. |
|---|---|---|---|---|
| Stocks beginning of year | 185 | 307 | 180 | 130 |
| Arrivals during year | 314 | 280 | 495 | 265 |
| Aggregating | 499 | 587 | 675 | 395 |
| Sales during year | 236 | 402 | 368 | 215 |
| Stocks end of year | 263 | 185 | 307 | 180 |

### *German Official Rubber Statistics.*

QUANTITIES.

| | 1899. | 1900. | 1901. |
|---|---|---|---|
| Imports.....*pounds* | 30,616,800 | 29,537,080 | 28,649,280 |
| Exports | 11,952,380 | 10,493,340 | 11,027,500 |
| Net Imports | 18,663,700 | 19,033 740 | 17,621,780 |

VALUES.

| | | | |
|---|---|---|---|
| Imports | $17,885,462 | $17,568,684 | $17,045,274 |
| Exports | 5,430,684 | 5,108,432 | 5,368,328 |
| Net Import value | $12,454,778 | $12,460,252 | $11,676,946 |

THE above figures include also Gutta-percha and Balata, no


## PROMOTER WANTED.

A LOAN of $5000 at 6 per cent. will give competent manager control of a Rubber factory, free and clear, and valued at $50,000, secured by mortgage and other inducements, at depot near Manhattan; or 5500 acres of timber land in mineral district on West Virginia Central railroad, also free and clear; or valuable property in New York, suitable for auction and storage business or hotel and restaurant; or valuable farm on Long Island railroad, between Brooklyn and Oyster Bay, for a new city. Address RETIRING MANUFACTURING MERCHANT, care of THE INDIA RUBBER WORLD. [169]

## SITUATION WANTED.

WANTED.—To form a permanent business connection with a mechanical rubber manufacturing company as Superintendent, Manager, Secretary or Chemist. Am an expert Chemist; experienced compounder; thoroughly familiar with factory methods and management; also with modern labor-saving office methods and accounting; now employed; correspondence solicited. Address S. W., care of THE INDIA RUBBER WORLD. [131]

distinction being made in the imperial customs classification. But what still further detracts from the value of these statistics in estimating the world's consumption of rubber is their inclusion of old rubber, or rubber scrap. But Germany is also a large exporter of rubber scrap, probably exporting more of this material than is imported, so that the above statements of "net imports" probably give very nearly the amount of crude India-rubber and Gutta-percha retained in the country for consumption. In the German imports of rubber for three years past are included the following amounts from countries which cannot be regarded as exporters of crude rubber, and these amounts must, therefore, be regarded as old rubber:

| FROM— | 1899. | 1900. | 1901. |
|---|---|---|---|
| Denmark.....*kilos.* | 29,200 | 62,300 | 56,900 |
| Finland..... | 25,000 | 116,100 | 137,500 |
| Norway..... | 59,100 | 61,600 | 90,100 |
| Austria-Hungary..... | 54,000 | 86,300 | 54,100 |
| Russia..... | 3,303,300 | 1,846,100 | 1,966,000 |
| Sweden..... | 199,900 | 383,300 | 392,700 |
| Switzerland..... | 28,900 | 64,700 | 58,800 |
| Turkey..... | 79,100 | 109,500 | 84,700 |
| Roumania..... | ..... | 21,400 | 25,200 |
| Total.....*kilos.* | 3,778,500 | 2,751,300 | 2,896,000 |
| COMPARATIVE STATEMENT (IN KILOS) | | | |
| Total imports..... | 13,916,400 | 13,480,200 | 13,022,400 |
| Old rubber..... | 3,778,500 | 2,751,300 | 2,866,000 |
| Leaving for crude rubber... | 10,137,900 | 10,728,900 | 10,156,400 |

*Bordeaux.*

THE importance of Bordeaux as a rubber market has been growing for several years past. During the year just ended the importations at that port from the Soudan have been 270,000 kilograms of rubber, at a value of 15,000,000 francs, two-thirds of which were Soudan twists, and the remainder Soudan niggers. The twists are in great demand on account of their purity and quality; the average price for these, during 1901 was 6 @ 6.90 francs per kilo. Niggers are not in great demand, being frequently sandy, and prices ruled for these at 4.50 @ 5.50 francs per kilo. The import of Casamance rubber amounted to 65,000 kilograms, at an estimated value of 325,000 francs. This quality is in great demand for certain purposes. The better sorts of Cassamance commanded a price of from 5.25 @ 6.80 francs, per kilogram, and the inferior sorts 3 @ 4.70 francs. The import of Grand Bassam amounted to about 5000 kilograms. This rubber belongs to the soft rubber class, but seems to be in extensive demand by some buyers. Cakes and lumps sold at 4.70 @ 5.40 francs per kilogram, and niggers at 5.70 @ 5.80 francs. Bordeaux received 5000 kilograms of Tonquin rubber; this importation is a recent venture and proved very unsatisfactory, too high a price having been paid for it at the place of production. The red rubber of Tonquin seems to find little favor with the manufacturers, but the black rubber could be readily sold at 6.50 @ 6.75 francs per kilogram. New Caledonia has also recently become a shipper of rubber to Bordeaux, the import being, during 1901, 3000 kilograms; the product is fine and clean, but hard and resinous, and was sold during the past year at 8 @ 8.25 francs per kilo. Imports from Java amounted to 5000 kilograms. This rubber, like that from Tonquin, soon becomes soft and sticky; its price was 7 @ 7.50 francs.—*Gummi-Zeitung.* [These various details amount to a total of 323,000 kilograms for 1901. The rubber imports at Bordeaux for the previous year amounted to 121,213 kilograms.]

## IMPORTS FROM PARA AT NEW YORK.

[*The Figures Indicate Weights in Pounds.*]

**January 29.**—By the steamer *Camelense*, from Manáos and Pará:

| IMPORTERS. | Fine. | Medium. | Coarse. | Caucho. | Total |
|---|---|---|---|---|---|
| New York Commercial Co. | 310,000 | 86,100 | 69,400 | 500= | 466,000 |
| A. T. Morse & Co. | 138,200 | 34,700 | 97,200 | 15,100= | 285,200 |
| Reimers & Co. | 55,300 | 21,100 | 86,600 | 58,000= | 221,000 |
| Boston Rubber Shoe Co. | 32,000 | 5,400 | 20,500 | .....= | 57,900 |
| United States Rubber Co. | 9,800 | 3,000 | 14,200 | .....= | 27,000 |
| Robinson & Tallman. | 8,100 | ..... | 1,700 | .....= | 9,800 |
| L. Hagenaers & Co. | 4,200 | ..... | 2,400 | .....= | 6,600 |
| Total. | 557,600 | 150,300 | 292,000 | 73,600= | 1,073,500 |

**February 11.**—By the steamer *Dominic* from Manáos and Pará:

| | | | | | |
|---|---|---|---|---|---|
| New York Commercial Co. | 199,800 | 60,800 | 97,200 | 66,800= | 424,600 |
| A. T. Morse & Co. | 205,100 | 65,300 | 62,700 | .....= | 333,100 |
| Reimers & Co. | 53,800 | 11,800 | 63,500 | 30,100= | 159,200 |
| United States Rubber Co. | ..... | ..... | 44,300 | .... = | 44,300 |
| Boston Rubber Shoe Co. | ..... | ..... | 44,200 | .....= | 44,200 |
| William Wright & Co. | .... | ..... | 12,000 | .....= | 12,000 |
| Total | 458,700 | 137,900 | 323,900 | 96,900= | 1,017,400 |

**February 21.**—By the steamer *Hildebrand*, from Manáos and Pará:

| | | | | | |
|---|---|---|---|---|---|
| New York Commercial Co. | 307,700 | 79,500 | 161,200 | 38,300= | 586,700 |
| Reimers & Co. | 146,200 | 45,000 | 68,700 | 23,800= | 283,700 |
| A. T. Morse & Co. | 72,000 | 9,000 | 132,200 | 4,300= | 217,500 |
| Boston Rubber Shoe Co. | ..... | ..... | 46,700 | 37,900= | 84,600 |
| United States Rubber Co. | ..... | ..... | 46,700 | .....= | 46,700 |
| William Wright & Co. | ..... | ..... | 22,700 | .....= | 22,700 |
| Robinson & Tallman | 10,000 | 700 | 2,000 | .....= | 12,700 |
| Hagemeyer & Brunn. | 7,100 | ..... | 3,300 | .....= | 10,400 |
| Total. | 543,000 | 134,200 | 483,500 | 104,300= | 1,265,000 |

[NOTE.—The steamer *Horatio*, from Pará, having on board 340 tons of Rubber and 70 tons of Caucho, is due at New York March 1.]

[NOTE—No Pará rubber via Europe reached New York during the past month.]

## OTHER ARRIVALS AT NEW YORK

### FROM THE ORINOCO.

| | POUNDS. |
|---|---|
| JAN. 29.—By *Prins Willem V*=Ciudad Bolivar: | |
| Thebaud Bros (Coarse Pará) | 10,000 |

### CENTRALS.

| | POUNDS. | |
|---|---|---|
| JAN. 23.—By the *Allianca*=Colon: | | |
| Hirzel, Feltman & Co. | 7,900 | |
| Isaac Brandon & Bros. | 7,200 | |
| A. Santos & Co. | 6,200 | |
| G. Amsinck & Co. | 5,200 | |
| Dumarest & Co. | 3,100 | |
| H. Marquardt & Co. | 2,500 | |
| Edwin B. Strout | 1,700 | |
| Joseph Hecht & Sons | 1,300 | |
| International Crude Rubber Co. | 900 | |
| W. R. Grace & Co. | 800 | |
| Edward Mauer. | 800 | |
| Flint, Eddy & Co | 800 | |
| L. N. Chemedlin & Co. | 700 | |
| Smithers, Nordenholt & Co. | 400 | |
| W. Loaiza & Co | 400 | |
| Mosle Brothers | 100 | 40,000 |
| JAN. 27.—By the *Louisiana*=New Orleans: | | |
| A. T. Morse & Co. | | 9,000 |

*CENTRALS—Continued.*

| | | |
|---|---|---|
| JAN. 27.—By *El Norte*=New Orleans: | | |
| A. T. Morse & Co. | 3,500 | |
| Eggers & Heinlein | 1,500 | |
| For Europe | 1,500 | 6,500 |
| JAN. 28.—By the *Finance*=Colon: | | |
| Hirzel, Feltman & Co. | 14,200 | |
| W. R. Grace & Co | 2,500 | |
| J. A. Wheeler | 1,500 | |
| G. Amsinck & Co | 2,000 | |
| Eggers & Heinlein | 1,500 | |
| Beck, Andrews & Co. | 300 | 22,000 |
| JAN. 28.—By the *Athos*=Greytown: | | |
| Andreas & Co. | 2,500 | |
| Edwin B. Strout | 1'000 | |
| A. D. Straus & Co. | 500 | |
| G. Amsinck & Co | 1,200 | |
| Samper & Co. | 1,000 | |
| Punderford & Co. | 700 | |
| Jimenez & Escobar | 500 | 7,400 |
| FEB. 3.—By the *Proteus*=New Orleans: | | |
| A. T. Morse & Co. | 2,200 | |
| A. N. Rotholz | 2,500 | |
| Eggers & Heinlein | 500 | 5,200 |

*CENTRALS—Continued.*

| | | |
|---|---|---|
| FEB. 3.—By the *Yucatan*=Mexico: | | |
| Flint, Eddy & Co. | 1,200 | |
| P. Harmony Nephews & Co. | 1,200 | |
| L. N. Chemedlin & Co. | 600 | 3,000 |
| FEB. 4.—By the *Alleghany*=Savanilla: | | |
| J. H. Recknagel & Son. | 2,500 | |
| G. Amsinck & Co | 1,000 | |
| Punderford & Co | 800 | |
| Kunhardt & Co. | 200 | |
| D. A. De Lima & Co | 300 | 4,800 |
| FEB. 4.—By the *Orizaba*=Colon: | | |
| A. Santos & Co. | 7,400 | |
| Hirzel, Feltman & Co. | 3,800 | |
| Frame, Alston & Co | 2,600 | |
| Dumarest & Co | 2,000 | |
| G. Amsinck & Co | 1,400 | |
| Flint, Eddy & Co | 1,800 | |
| Joseph Hecht & Son | 300 | 19,100 |
| FEB. 4.—By the *Saxonia*=Liverpool: | | |
| Robinson & Tallman. | | 8,500 |
| FEB. 5.—By *El Rio*=New Orleans: | | |
| A. T. Morse & Co. | 4,500 | |
| T. N. Morgan | 500 | 5,000 |

*CENTRALS—Continued.*

FEB. 7.—By *El Dorado*=New Orleans:

| | | |
|---|---|---|
| A. T. Morse & Co. | | 2,000 |

FEB. 7.—By the *Havana*=Mexico:

| | | |
|---|---|---|
| E. Steiger & Co | 3,000 | |
| Theband Brothers | 1,000 | |
| H. Marquardt & Co. | 3,000 | |
| F. Probst & Co. | 500 | |
| For Europe | 7,500 | 15,000 |

FEB. 13.—By the *Alene*=Greytown:

| | | |
|---|---|---|
| Edwin B. Strout | 6,500 | |
| A. D. Straus & Co | 3,000 | |
| Livingstone & Co | 1,200 | |
| G. Amsinck & Co. | 1,000 | |
| Jimenez & Escobar | 1,000 | |
| Lawrence Johnson & Co. | 1,000 | 13,700 |

FEB. 13.—By the *Advance*=Colon:

| | | |
|---|---|---|
| Isaac Brandon & Bros. | | 6,200 |

FEB. 13.—By *El Sud*=New Orleans:

| | | |
|---|---|---|
| A. T. Morse & Co. | 7,000 | |
| Samper & Co. | 2,500 | |
| A. S. Lassellas & Co. | 100 | 9,600 |

FEB. 14.—By *El Paso*=New Orleans:

| | | |
|---|---|---|
| A. T. Morse & Co. | | 20,000 |

FEB. 17.—By the *Etruria*=Liverpool:

| | | |
|---|---|---|
| Otto Meyer | | 21,929 |

FEB. 18.—By the *Altai*=Savanilla:

| | | |
|---|---|---|
| G. Amsinck & Co | 2,000 | |
| Kunhardt & Co | 2,500 | |
| For Europe | 2,000 | |
| D. A. De Lima & Co. | 1,200 | |
| Roldan & Van Sickle | 500 | |
| Lawrence Johnson & Co. | 500 | |
| Jimenez & Escobar | 200 | |
| J. Firro | 100 | 9,000 |

FEB. 18.—By the *Alliance*=Colon:

| | | |
|---|---|---|
| Hirzel, Feltman & Co | 14,500 | |
| D. A. DeLima & Co. | 9,800 | |
| Isaac Brandon & Bros. | 8,200 | |
| Flint, Eddy & Co | 5,400 | |
| G. Amsinck & Co | 4,000 | |
| A. Santos & Co. | 3,800 | |
| Dumarest & Co. | 3,200 | |
| H. Marquardt & Co. | 3,200 | |
| R. F. Cornwell | 2,200 | |
| Edward Mauer | 1,100 | |
| Eggers & Heinlein | 800 | |
| Frame, Alston & Co | 700 | |
| Lawrence Johnson & Co. | 400 | |
| Roldan & Van Sickle | 200 | |
| Jos. Hecht & Son | 200 | 58,700 |

FEB. 18.—By the *Bellanoch*=Bahia:

| | | |
|---|---|---|
| J. H. Rossbach & Bros | | 3,500 |

FEB. 19.—By the *Adirondack*=Savanilla:

| | | |
|---|---|---|
| G. Amsinck & Co | 2,000 | |
| J. H. Recknagel & Co. | 1,500 | |
| Jimenez & Escobar | 800 | |
| Kunhardt & Co. | 400 | |
| Samper & Co. | 300 | 4,700 |

FEB. 20.—By *El Valle*=New Orleans:

| | | |
|---|---|---|
| A. T. Morse & Co. | 14,000 | |
| Eggers & Heinlein | 2,000 | |
| For Europe | 2,000 | 17,000 |

AFRICANS.

| | POUNDS. | |
|---|---|---|
| JAN. 24.—By the *Celtic*=Liverpool: | | |
| George A. Alden & Co. | 22,000 | |
| Reimers & Co. | 6,500 | |
| Ideal Rubber Co. | 11,000 | 39,500 |
| JAN. 25.—By the *Pretoria*=Hamburg: | | |
| A. T. Morse & Co. | | 7,000 |
| JAN. 27.—By the *Umbria*=Liverpool: | | |
| George A. Alden & Co. | 20,000 | |
| Reimers & Co. | 26,000 | |
| Otto Meyer | 19,806 | |
| Robinson & Tallman | 3,500 | 69,306 |
| FEB. 3.—By the *Phœnicia*=Hamburg: | | |
| William Wright & Co | | 11,500 |
| FEB. 4.—By the *Saxonia*=Liverpool: | | |
| Robinson & Tallman | 26,000 | |
| Reimers & Co | 9,000 | |
| George A. Alden & Co. | 2,000 | 37,000 |
| FEB. 5.—By the *Zeeland*=Antwerp: | | |
| George A. Alden & Co. | 45,000 | |
| A. T. Morse & Co. | 13,500 | 58,500 |
| FEB. 7.—By the *Patricia*=Hamburg: | | |
| Reimers & Co. | 25,000 | |
| Otto Meyer, Boston | 4,500 | 29,500 |
| FEB. 10.—By the *Lucania*=Liverpool: | | |
| George A. Alden & Co. | 26,000 | |
| International Crude Rubber Co. | 3,000 | 29,000 |
| FEB. 10.—By the *British Princess*=Antwerp: | | |
| Joseph Cantor | 35,000 | |
| A. T. Morse & Co. | 5,000 | 40,000 |
| FEB. 17.—By the *Etruria*=Liverpool: | | |
| George A. Alden & Co. | 30,000 | |
| Otto Meyer | 11,500 | 41,500 |
| FEB. 19.—By the *Friesland*=Antwerp: | | |
| A. T. Morse & Co. | | 22,500 |

EAST INDIAN.

| | POUNDS. | |
|---|---|---|
| JAN. 23.—By the *Pretoria*=Hamburg: | | |
| William Wright & Co. | 2,500 | |
| Robinson & Tallman | 1,000 | 3,500 |
| FEB. 5.—By the *Cloverdale*=Singapore: | | |
| Reimers & Co. | | 11,000 |
| FEB. 17.—By the *St. Paul*=Southampton: | | |
| Reimers & Co. | | 15,000 |

PONTIANAK.

| | | |
|---|---|---|
| FEB. 5.—By the *Cloverdale*=Singapore: | | |
| Reimers & Co. | 30,000 | |
| William Wright & Co. | 185,000 | 215,000 |
| FEB. 11.—By the *Kurdistan*=Singapore: | | |
| Robert Branss & Co. | | 75,000 |

GUTTA-PERCHA AND BALATA.

| | POUNDS. | |
|---|---|---|
| FEB. 17.—By the *St. Paul*=Southampton: | | |
| George A. Alden & Co. | | 2,500 |

BALATA.

| | | |
|---|---|---|
| JAN. 25.—By the *St. Paul*=Southampton: | | |
| George A. Alden & Co. | 2,500 | |
| H. A. Gould & Co. | 1,000 | 3,500 |
| FEB. 7.—By the *Patricia*=Hamburg: | | |
| Robert Soltau & Co. | | 11,500 |
| FEB. 15.—By the *Prins Maurits*=Trinidad: | | |
| Theband Brothers. | 1,500 | |
| George A. Alden & Co. | 500 | 2,000 |

## CUSTOM HOUSE FIGURES.

PORT OF NEW YORK—JANUARY.

| *Imports:* | POUNDS. | VALUE. |
|---|---|---|
| India-rubber | 5,939,501 | $2,932,514 |
| Gutta-percha | 48 | 40 |
| Gutta-jelatong (Pontianak) | 2,479,977 | 72,114 |
| | 8,419,526 | $3,004,668 |
| *Exports:* | | |
| India-rubber | 81,305 | $45,905 |
| Reclaimed rubber | 171,611 | 25,900 |
| Rubber Scrap Imported | 137,865 | $69,473 |

## BOSTON ARRIVALS.

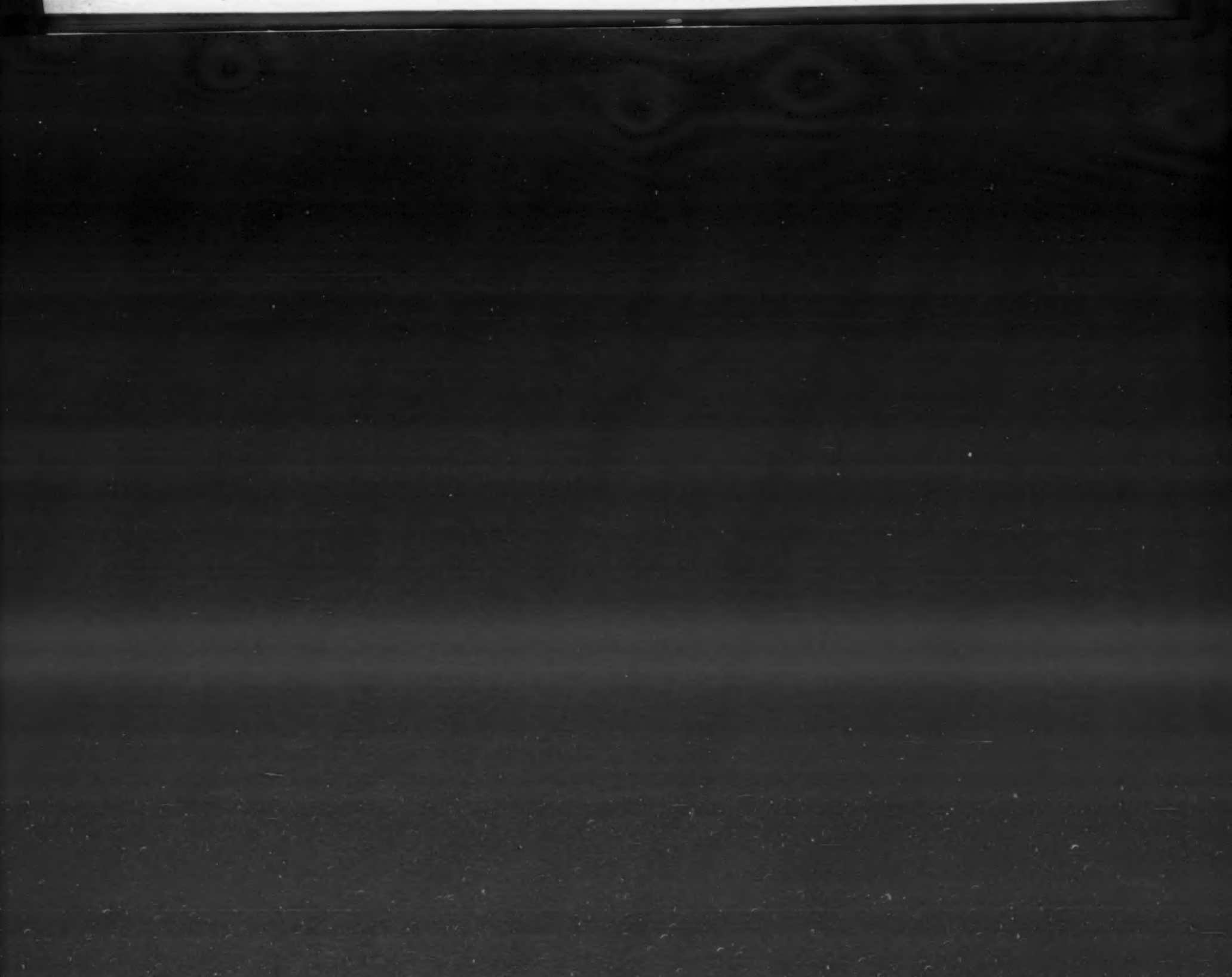
| | POUNDS. | |
|---|---|---|
| JAN. 2.—By the *Adria*—Hamburg: | | |
| Livesey & Co.—African | | 21,518 |
| JAN. 4.—By the *Cestrian*=Liverpool: | | |
| Robinson & Tallman.—Caucho | 6,706 | |
| Livesey & Co.—Centrals | 8,487 | 15,193 |
| JAN. 8.—By the *Zeeland*=Antwerp: | | |
| George A. Alden & Co.—African | | 44,904 |
| [Included in arrivals at New York, January 9.] | | |
| JAN. 9.—By the *Sagamore*=Liverpool: | | |
| George A. Alden & Co.—African | 30,453 | |
| Otto Meyer—African | 2,249 | 32,702 |
| JAN. 14.—By the *Friesland*=Antwerp: | | |
| Reimers & Co.—African | | 33,073 |
| [Included in arrivals at New York, January 9.] | | |
| JAN. 14.—By the *Alexandria*=Hamburg: | | |
| Otto Meyer—African | | 7,757 |
| JAN. 15.—By the *Kansas*=Liverpool: | | |
| Reimers & Co.—Caucho | 36,295 | |
| George A. Alden & Co.—African | 22,58 | 58,882 |
| JAN. 28.—By the *Sachem*=Liverpool: | | |
| Reimers & Co.—African | | 29,311 |
| JAN. 30.—By the *Devonian*=Liverpool: | | |
| George A. Alden & Co.—African | 22,587 | |
| Reimers & Co.—African | 22,369 | 44,956 |
| JAN. 31.—By the *Irishman*=Liverpool: | | |
| Orto Meyer—African | | 4,635 |
| Total | | 291,921 |

[Value, $147,189.]

## JANUARY EXPORTS OF INDIA-RUBBER FROM PARA.

IN KILOGRAMS. 100$_0$ KILOGRAMS=2204.6 POUNDS.

| EXPORTERS. | UNITED STATES. | | | | | EUROPE. | | | | | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | FINE. | MEDIUM. | COARSE. | CAUCHO. | TOTAL. | FINE. | MEDIUM. | COARSE. | CAUCHO. | TOTAL. | |
| Cmok, Prüsse & Co. | 14,280 | 1,190 | 61,000 | — | 76,470 | 130,425 | 13,029 | 44,757 | 10,380 | 198,591 | 275,061 |
| Frank da Costa & Co. | 76,354 | 11,432 | 182,787 | 340 | 270,913 | 85,440 | 10,146 | 17,064 | 5,250 | 117,900 | 388,813 |
| Adelbert H. Alden | 96,846 | 32,117 | 67,136 | 1,171 | 197,270 | 13,500 | 1,620 | 3,520 | — | 18,640 | 215,910 |
| The Sears Pará Rubber Co. | 4,080 | 340 | — | — | 4,420 | — | — | — | — | — | 4,420 |
| Kanthack & Co. | — | — | — | — | — | 15,392 | 1,269 | 20,603 | — | 37,264 | 37,264 |
| Neale & Staats | 8,160 | 1,020 | 22,320 | — | 31,500 | 57,782 | 10,850 | 9,701 | 5,397 | 83,730 | 115,230 |
| H. A. Astlett | — | — | — | — | — | 2,523 | — | 621 | — | 3,144 | 3,144 |
| Denis Crouan & Co. | — | — | 16,015 | — | 16,015 | 67,407 | 11,585 | 23,977 | — | 102,969 | 118,984 |
| R. Suarez & Co. | — | — | — | — | — | 56,745 | 8,467 | 2,583 | 2,725 | 70,520 | 70,520 |
| Pires, Teixeira & Co. | 3,813 | — | 1,580 | — | 5,393 | 3,213 | 189 | 3,046 | — | 6,448 | 11,841 |
| Sundry Small Shippers | — | — | — | — | — | 5,625 | 800 | 1,244 | — | 7,669 | 7,669 |
| Direct from Iquitos | — | — | — | — | — | 162,980 | 14,945 | 80,327 | 133,795 | 392,047 | 392,047 |
| Direct from Manáos | 401,801 | 131,798 | 132,057 | 135,907 | 801,563 | 739,213 | 172,315 | 113,607 | 206,893 | 1,232,028 | 2,033,591 |
| Total for January | 605,334 | 177,897 | 482,895 | 137,418 | 1,403,544 | 1,340,245 | 245,215 | 321,050 | 364,440 | 2,270,950 | 3,674,494 |
| Total for July-December. | 3,159,115 | 794,731 | 1,869,858 | 214,206 | 6,037,910 | 4,585,094 | 823,442 | 1,196,891 | 657,713 | 7,263,140 | 13,301,050 |
| TOTAL, CROP YEAR | 3,764,449 | 972,628 | 2,352,753 | 351,624 | 7,441,454 | 5,925,339 | 1,068,657 | 1,517,941 | 1,022,153 | 9,534,090 | 16,975,544 |



CABLE ADDRESS,
"GUTTAPERCH, TORONTO."

CODES:
A. 1.,
A.B.C. 4TH ED.,
DIRECTORY,
LIEBER'S,
WESTERN UNION,
PRIVATE.

THE GUTTA PERCHA & RUBBER M'F'G CO. OF TORONTO LIMITED — TRADE MARK

H. D. WARREN, PRES. & TREAS.
C. N. CANDEE, SECY.

# Rubber Belting
# Packings, Hose and
# Mechanical Rubber Goods

SOLE MANUFACTURERS IN CANADA OF

"Kelly-Springfield" Solid Rubber Carriage Tires,
"Maltese Cross" Carbolized Rubber Fire Hose,
"Eureka," "Paragon" and other High Grades Cotton Fire Hose.

"Maltese Cross" and "Lion" Brands Rubber Boots and Shoes.

## THE GUTTA PERCHA & RUBBER MFG. CO.

OF TORONTO, LIMITED.

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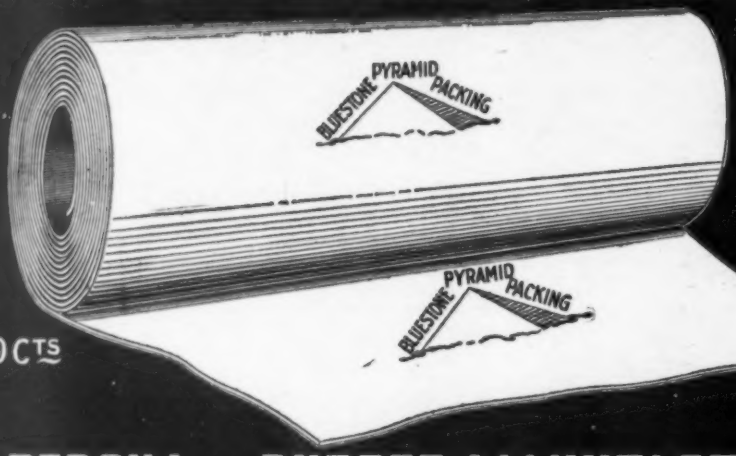


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